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Arizona Corporation Commission

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DEC 2 2011



Via Overnight Mail

December 2, 2011

Arizona Corporation Commission Attn: Docket Filing Window 1200 West Washington Street Phoenix, AZ 85007

Re: Docket No. E-01345A-11-0224

MECEIVED

MEC-2 P 2: 29

Dear Sir or Madam:

Attached please find the original and 13 copies each of the DIRECT TESTIMONY AND EXHIBITS OF STEPHEN J. BARON ON COST OF SERVICE/RATE DESIGN on behalf of THE KROGER CO. for filing in the above-referenced matter.

All parties of record have been served. Please place this document of file.

very ruly yours

Kurt J. Boehm, Esq.

BOEHM, KURTZ & LOWRY

John William Moore, Jr., (Az. Bar No. 021942)

COUNSEL FOR THE KROGER CO.

KJB/kew Attachments

CERTIFICATE OF SERVICE

I hereby certify that true copy of the foregoing was served by electronic mail (when available) and regular U.S. mail 2nd day of December, 2011 on the parties listed below.

Kurt J. Boehm, Esq.

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BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

GARY PIERCE, CHAIRMAN BOB STUMP SANDRA D. KENNEDY PAUL NEWMAN BRENDA BURNS

R OF THE APPLICATION OF)	
IC SERVICE COMPANY FOR)	
DETERMINE THE FAIR VALUE)	
Y PROPERTY OF THE COMPANY) Docket No. E-01345A-11-	-0224
ING PURPOSES, TO FIX A JUST)	
BLE RATE OF RETURN)	
APPROVE RATE SCHEDULES)	
DEVELOP SUCH RETURN)	
BLE RATE OF RETURN) APPROVE RATE SCHEDULES)	

DIRECT TESTIMONY

AND EXHIBITS

OF

STEPHEN J. BARON

ON

COST OF SERVICE/RATE DESIGN

RECEIVED

2011 DEC -2 P 2 20

ON BEHALF OF THE

KROGER CO.

J. KENNEDY AND ASSOCIATES, INC. ROSWELL, GEORGIA

December 2011

BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE APPLICATION OF)
ARIZONA PUBLIC SERVICE COMPANY FOR)
A HEARING TO DETERMINE THE FAIR VALUE)
OF THE UTILITY PROPERTY OF THE COMPANY) Docket No. E-01345A-11-0224
FOR RATEMAKING PURPOSES, TO FIX A JUST)
AND REASONABLE RATE OF RETURN)
THEREON, TO APPROVE RATE SCHEDULES)
DESIGNED TO DEVELOP SUCH RETURN)

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III.	RATE E-32 RATE DESIGN	22

BEFORE THE

ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE APPLICATION OF)
ARIZONA PUBLIC SERVICE COMPANY FOR)
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THEREON, TO APPROVE RATE SCHEDULES)
DESIGNED TO DEVELOP SUCH RETURN)

DIRECT TESTIMONY OF STEPHEN J. BARON

INTRODUCTION

Q. Please state your name and business address. A. My name is Stephen J. Baron. My business address is J. Kennedy and Associates, Inc. ("Kennedy and Associates"), 570 Colonial Park Drive, Suite 305, Roswell, Georgia 30075.

Q. What is your occupation and by who are you employed?

I.

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A. I am the President and a Principal of Kennedy and Associates, a firm of utility rate, planning, and economic consultants in Atlanta, Georgia.

Q. Please describe briefly the nature of the consulting services provided by Kennedy and Associates.

A. Kennedy and Associates provides consulting services in the electric and gas utility industries. Our clients include state agencies and industrial electricity consumers. The firm provides expertise in system planning, load forecasting, financial analysis, cost-of-service, and rate design. Current clients include the Georgia and Louisiana Public Service Commissions, and industrial consumer groups throughout the United States.

A.

Q. Please state your educational background.

I graduated from the University of Florida in 1972 with a B.A. degree with high honors in Political Science and significant coursework in Mathematics and Computer Science. In 1974, I received a Master of Arts Degree in Economics, also from the University of Florida. My areas of specialization were econometrics, statistics, and public utility economics. My thesis concerned the development of an econometric model to forecast electricity sales in the State of Florida, for which I received a grant from the Public Utility Research Center of the University of Florida. In addition, I have advanced study and coursework in time series analysis and dynamic model building.

Q. Please describe your professional experience.

A. I have more than thirty years of experience in the electric utility industry in the areas of cost and rate analysis, forecasting, planning, and economic analysis.

Following the completion of my graduate work in economics, I joined the staff of the Florida Public Service Commission in August of 1974 as a Rate Economist. My responsibilities included the analysis of rate cases for electric, telephone, and gas utilities, as well as the preparation of cross-examination material and the preparation of staff recommendations.

In December 1975, I joined the Utility Rate Consulting Division of Ebasco Services, Inc. as an Associate Consultant. In the seven years I worked for Ebasco, I received successive promotions, ultimately to the position of Vice President of Energy Management Services of Ebasco Business Consulting Company. My responsibilities included the management of a staff of consultants engaged in providing services in the areas of econometric modeling, load and energy forecasting, production cost modeling, planning, cost-of-service analysis, cogeneration, and load management.

I joined the public accounting firm of Coopers & Lybrand in 1982 as a Manager of the Atlanta Office of the Utility Regulatory and Advisory Services Group. In this capacity I was responsible for the operation and management of the Atlanta office. My duties included the technical and administrative supervision of the staff,

budgeting, recruiting, and marketing as well as project management on client 1 At Coopers & Lybrand, I specialized in utility cost analysis, 2 engagements. 3 forecasting, load analysis, economic analysis, and planning. 4 In January 1984, I joined the consulting firm of Kennedy and Associates as a Vice 5 President and Principal. I became President of the firm in January 1991. 6 7 During the course of my career, I have provided consulting services to more than 8 thirty utility, industrial, and Public Service Commission clients, including three 10 international utility clients. 11 12 I have presented numerous papers and published an article entitled "How to Rate Load Management Programs" in the March 1979 edition of "Electrical World." My 13 14 article on "Standby Electric Rates" was published in the November 8, 1984 issue of 15 "Public Utilities Fortnightly." In February of 1984, I completed a detailed analysis entitled "Load Data Transfer Techniques" on behalf of the Electric Power Research 16 17 Institute, which published the study. 18 19 I have presented testimony as an expert witness in Arizona, Arkansas, Colorado, 20 Connecticut, Florida, Georgia, Indiana, Kentucky, Louisiana, Maine, Maryland, 21 Michigan, Minnesota, Missouri, New Jersey, New Mexico, New York, North

Carolina, Ohio, Pennsylvania, Texas, Utah, Virginia, West Virginia, Wisconsin,

22

1		Wyoming, before the Federal Energy Regulatory Commission ("FERC"), and in
2		United States Bankruptcy Court. A list of my specific regulatory appearances can be
3		found in Exhibit(SJB-1).
4		
5	Q.	Have you previously presented testimony before the Arizona Corporation
6		Commission?
7	A.	Yes. I presented testimony in three previous Arizona Public Service Company rate
8		cases on behalf of Kroger Co. in 2004, 2006 and in 2008 (Docket Nos. E-01345-03-
9		0437, E-01345A-05-0816 and E-01345A-08-0172). I also presented testimony in
10		two Tucson Electric Power Company proceedings; in 1981 on behalf of the
11		Commission (Docket No. U-1933I) and in 2008 on behalf of Kroger Co. (Docket
12		No. E-01933A-07-0402).
13		
14		Finally, I previously presented testimony on decoupling issues in this APS rate case.
15		
16	Q.	On whose behalf are you testifying in this proceeding?
17	A.	I am testifying on behalf of the Kroger Co. Kroger has approximately 36 stores in
18		the APS service territory operating under the names Fry's, Fred Meyer and Smith's.
19		These stores consume in excess of 100 million kWh per year on the APS system.
20		
21	Q.	What is the purpose of your testimony?

A. I will be presenting testimony on the Company's class cost of service study, the allocation of the proposed revenue increase to rate schedules and APS's proposed Schedule E-32 L, Large General Service rate design.

Though I believe that the Company's 4 Coincident Peak production demand allocation methodology used by APS in its jurisdictional allocation study is also the most appropriate method to allocate these demand related production costs to rate classes, I accept the Company's Average and Excess Demand method in this case. The AED method provides a reasonable basis to assess cost responsibility in this case. As I will discuss, based on the Company's AED cost study, there are substantial differences between the rates paid by residential and general service customers and the cost to provide service to these customers. Specifically, the Company's own study shows that residential customers are currently receiving very substantial dollar subsidies and underpaying rates, relative to cost of service. At the same time, general service customers are paying substantial subsidies. Despite this finding, the Company's proposed increases to its Residential and General Service rate classes do not provide a material level of mitigation to this disparity between cost of service and rates. I will address this issue and recommend that the

¹ Kroger is not presenting testimony on the Company's requested revenue increase in this case. For purposes of my testimony, I have utilized the APS requested effective increase of \$194 million (\$95 million plus the net effect of the PSA and RES roll-ins). This should not be construed as an endorsement of the Company's requested increase.

Commission adopt an alternative rate spread that more reasonably reduces intraclass subsidies using the APS class cost of service results.

With regard to rate design, I generally agree with the Company's proposed modifications to the E-32 L rate design; specifically the proposal to eliminate the hours use kWh block in the rate and shift demand related fixed costs to the kW demand charge of this rate. As I will discuss, this proposal is consistent with cost based rate design.

Q. Would you please summarize your recommendations?

11 A.

• For the purposes of assessing the reasonableness of the Company's proposed allocation of the revenue increase to rate schedule in this case, APS' proposal to use an Average and Excess Demand ("AED") class cost of service method is reasonable. The AED method is a traditional cost of service method that recognizes the role of both customer kW demand and energy in cost causation. Unlike other weighted demand and energy methodologies, the AED method gives a reasonable weighting to the importance of class demands in the allocation of the system's fixed production costs to rate classes.

 • Though APS states that it has given some recognition to the cost of service results in its proposed rate schedule increases in this case, the Company's proposed rate spread does not reasonably reduce the current level of intra-rate class subsidies. For example, despite the fact that Rate E-32 L is currently paying rates substantially above cost of service, the Company is proposing a non-fuel, non-transmission rate increase to Rate E-32 L of 17.59%, well above the retail average increase of 11.4% (\$194 million) on total revenues, less fuel and transmission revenues.

A more appropriate rate spread, which I am recommending in this case, would increase all general service rate schedules by 3.73 percentage points <u>less</u> than the 11.4% retail average increase, while increasing the residential class by 3 percentage points more than the retail average. This rate spread more

reasonably corresponds to the cost of service study results in this case. Table 4 provides my recommended rate spread for all classes, based on the Company's filed overall revenue increase. Assuming an overall revenue increase of 11.36% on total revenue less fuel and transmission, general service rates should be increased by 7.63% and residential class should be increased by 14.36%, on a non-fuel, non-transmission revenue basis.

 • APS is proposing to eliminate the hours use rate design for Rate E-32 L (greater than 400 kW demand) and move the demand related costs currently being recovered in this hours use kWh charge into the kW demand charges of the rate. This proposal is reasonable and consistent with a cost based rate.

• APS is proposing larger increases to higher load factor E-32 L customers than to lower load factor customers. There is no evidence to support this rate design. The Company's E-32 L rate should be modified such that, after accounting for the shift of demand cost recovery from the 1st hours-use energy block to the demand charge (as proposed by APS), the restructured demand and energy charges should be increased by a uniform percentage, following the three step procedure described in my testimony.

• II. REVENUE ALLOCATION AND COST OF SERVICE

Q. Have you reviewed the Company's 12 month ending December 2010 test year cost of service study filed in this proceeding?

A. Yes. The Company is utilizing a traditional Average and Excess Demand ("AED") class cost of service study in this proceeding to allocate production related demand costs. In many past cases, APS used a 4 CP allocation method because of the pronounced demands on the system during the summer months, though in the Company's 2008 case, APS adopted the AED method.² In the prior three APS base rate cases, I supported the Company's use of the 4 CP method and continue to do so in this case. The fact that the Company is continuing to rely on the 4 CP methodology to allocate jurisdictional costs indicates that it is an appropriate methodology for APS, given the load characteristics of the system and the significance of summer peak loads on generation costs.

Q. Do you believe that the Company's proposal to use the AED method for retail class cost of service allocation provides a reasonable basis to evaluate the relationship between the rates being charged each rate class and the underlying cost of providing service to these customers?

² APS is continuing to use a 4 CP methodology in its jurisdictional cost allocation study in this case.

A. Yes, while I would prefer the 4 CP method in this case for class cost of service, it is appropriate to use the AED method for the purpose of assessing the reasonableness of the Company's proposed allocation of the revenue increase to rate schedule. The AED method is a traditional cost of service method that recognizes the role of both customer kW demand and energy in cost causation. Unlike other weighted demand and energy methodologies, the AED method gives a reasonable weighting to the importance of class demands in the allocation of the system's fixed production costs to rate classes.

Q. How should the results of the Company's class cost of service study be used in this case?

A.

The purpose of an embedded, fully allocated class cost of service study is to assess the reasonableness of a utility's rates, in relation to the underlying cost of providing service to the customers on each rate class. As a matter of policy, it is both efficient and equitable to establish rates on the basis of the cost of service and, to the extent feasible, to move rates towards cost of service in a rate case in which a utility is requesting a change in revenues. In other words, a rate case, such as the current APS proceeding, is an opportunity to evaluate the Company's rates and make incremental adjustments so that, over time, each class will pay rates reflecting cost of service. In so doing, rates paid by each customer will provide efficient "price signals" reflecting the resource cost of meeting customer demands. In addition, cost

1		based rates provide an equitable basis to assign the Company's overall revenue
2		requirement to customers. In this manner, customers in one rate class do not pay or
3		receive unjustified monetary subsidies from other rate customers.
4		
5	Q.	How do the Company's current rates compare to the underlying cost of
6		service?
7		
8	A.	A good measure of this rate versus cost relationship is the relative class rates of
9		return at present rates. This measurement, which is the ratio of a class's rate of
10		return relative to the average retail earned rate of return, provides a good summary
11		of the rate versus cost relationship, based on the results of the Company's AED cost
12		of service study.
13		
14	Q.	What are the class relative rates of return results produced by the Company's
15		test year AED cost of service study?
16		
17	A.	The table below summarizes the rates of return and the relative rate of return indices
18		("ROR Index") for each of the major rate classes using the results of the Company's
19		AED study.

TABLE 1				
Comparison of Relative Rates of Return				
Average and Excess Demand Cost of Service Study				
Pres	ent Rates			
	Rate			
<u>Class</u>	of Return	ROR Index		
Residential	6.08%	0.73		
General Svc 11.86%		1.43		
E-20 (Church Rate)	3.95%	0.48		
E-32 TOU	14.45%	1.74		
E-30, E-32 (0-100 kW)	13.25%	1.60		
E-32 (101-400 kW)	11.77%	1.42		
E-32 (401+ kW)	10.90%	1.31		
E-34	9.41%	1.13		
E-35	8.85%	1.07		
Irrigation 6.06% 0		0.73		
Street Light	7.19%	0.87		
Dusk to Dawn	9.76%	1.18		
Total Retail	8.29%	1.00		

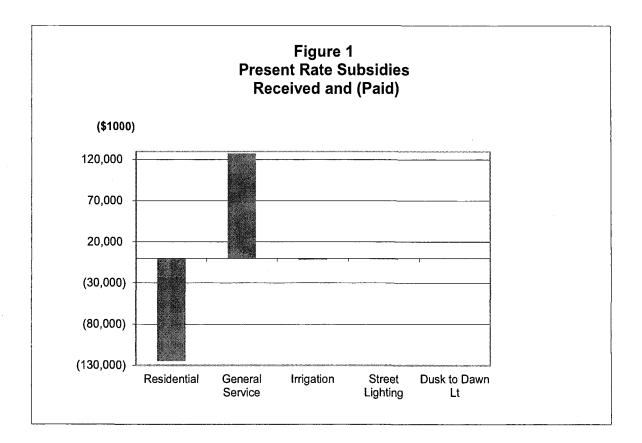
Based on these results, the residential class is paying only 73% of its allocated cost of service under present rates, while general service customers are paying a relative rate of return that is approximately 143% of the system average. This is a substantial difference and one that should be addressed in this rate proceeding.

Q. How do these relative rates of return results compare to the results in the Company's prior 2008 rate case (Docket No. E-01933A-07-0402)?

A. In the 2008 rate case, the APS cost of service study showed that the residential class was paying only 75% of its allocated cost of service under the then existing present rates, while general service customers were paying a relative rate of return that was approximately 130% of the system average. Essentially, there was zero progress made in moving rates towards cost of service in the last rate case; in fact, general service customers now are further from cost of service than they were at the time of the last rate case.

Q. Have you computed the dollar subsidies being paid and received by each rate class at present rates, based on the results of the 2010 Company's cost of service study filed in this case?

As can be seen, the residential class is receiving (shown as a positive value) over \$125 million in subsidies at present rate from other rate classes. At the same time, general service customers pay annual subsidies of over \$125 million. These results are based on the Company's filed AED class cost of service study, without any adjustments. These subsidies have actually grown substantially since the Company's last base rate case. Baron Exhibit_(SJB-2) shows the calculation of these subsidies by rate schedule.



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Q. Has APS made rate spread proposals in this case that adequately address the substantial disparities between present rates and cost of service?

A. Not in my opinion. APS states that it is requesting an "overall increase in retail base rates of \$95,493,000, which is a 3.33% increase over adjusted test year base revenues.³ Based on this overall increase, APS is proposing to increase residential rates by 3.95% and general service rates by 2.64%. APS witness Charles Miessner states that this rate spread is based on the results of the Company's class cost of

³ Direct Testimony of Charles Miessner at page 3, line 23.

service study and gradualism. While I agree with the Company's principles governing its proposed rate spread (cost of service and gradualism), I disagree that the Company has reasonably applied these principles in its rate spread recommendation.

As I showed above in Table 1 and in Figure 1, the residential class is currently paying rates substantially below cost of service, while general service customers are paying rates substantially above cost. Based on this cost of service data, general service rates should receive a below average increase and residential customers should receive an above average increase in this case.

Q. Doesn't the Company's rate spread proposal result in a lower overall increase to general service customers?

A.

No. While the Company has presented its increase in this case as a \$95 million, 3.3% base rate increase, this is misleading and does not correctly portray the increases that are actually being requested by APS in this case. In addition, as I will demonstrate, when the full effect of the Company's proposed increase is properly reflected in the analysis, general service rates are actually being increased by more than the retail system average and residential rates are being increased by less than the system average.

Q. Would you explain why the actual APS proposal in this case is a \$194 million increase, rather than \$95 million?

While it is true that the "base rate" increase request is \$95 million, APS customers currently receive a \$143 million PSA credit that is being rolled in to base rates. This credit will no longer be available in the PSA, but rather included directly in base rates. The real impact on customers is thus \$95 million plus \$143 million. In addition, the Company is transferring \$45 million into base rates from the existing REAC charge. This transfer has the opposite effect on rates from the PSA roll-in; the RES/REAC charges are reduced by \$45 million and base rates are increase by \$45 million. When these two transfers are netted against the \$95 million reported base rate increase, the true "base rate" increase to APS retail customers is \$194.093 million.

A.

Q. What is the impact of the actual \$194 million requested increase on APS rates?

A. Baron Exhibit__(SJB-3) shows the Company's proposed increases for each rate class and on an overall retail basis. This analysis calculates the percentage impacts on present rate revenues, excluding fuel revenues and transmission revenues.⁴ Since the Company's requested increase in this case does not include fuel or transmission costs, it is appropriate to examine the APS proposal exclusive of these two revenue sources. In other words, fuel costs and transmission costs are not at issue in this

⁴ The PSA and RES roll-in impacts by rate schedule have been provided by APS in response to AEEC 1.1. The base fuel amounts in present rates have been calculated using the approach used by APS in LRS WP1.

case. Also, the class cost of service study, which APS states has been relied (together with gradualism) to apportion the overall increase to rate classes, reports class rates of return under the assumption that fuel and transmission revenues equal fuel and transmission expenses for each rate class.

The problem with the APS rate spread, which is summarized in Mr. Miessner's Schedule H-1, is that it ignores the roll-in effects of the PSA, and the REAC, and calculates the percentage increases on present revenues that include all fuel and transmission revenues, even though these costs are not affected by the proposed rate change. By failing to remove the effect of the PSA roll-in, the Company's reported rate schedule increases show a disproportionate benefit to high load factor rates that doesn't exist, because the Company fails to also include the loss of the PSA credit (it zeros out as a result of the roll-in). Since the PSA roll-in is revenue neutral on a total system basis and on a rate schedule basis, it is appropriate to remove these fuel revenues when evaluating the true impact of the Company's rate spread recommendation.

As shown in Exhibit__(SJB-3), the true overall increase requested by APS, as a percent of revenues, excluding fuel and transmission revenues, is 11.36%. This is the increase on retail revenues at issue in this case. Residential rates are being increased by 11.10% and APS is proposing that general service rates receive an 11.73% increase. However, within the general service class, a number of individual

J. Kennedy and Associates, Inc.

rate schedules are receiving increases substantially above the retail average. Table 2 below summarizes the Company's proposed increases by rate class, including details for general service rate schedules.

TABLE 2 APS Proposed Increases (% Increases on Base Revenues, Less Fuel and Transmisson)			
	Proposed	Proposed	
<u>Class</u>	<u>Increase</u>	% Increase	
Residential	102,029	11.10%	
General Svc	88,421	11.73%	
E-20	219	9.90%	
E-30	38	3.33%	
E-32 TOU	2,837	16.11%	
E-32 (0-20 kW)	5,983	4.28%	
E-32 (21-100 kW)	9,199	5.11%	
E-32 (101-400 kW)	22,441	12.50%	
E-32 (401+ kW)	26,933	17.59%	
E-34	8,170	22.72%	
E-35	12,601	28.59%	
Irrigation	2,047	15.96%	
Outdoor Lighting	1,339	8.87%	
Dusk to Dawn	257	3.46%	
Total Retail	194,093	11.36%	

As can be seen from the table, Rate E-32 L ("401 + kW") customers will receive an increase of 17.59 under the APS proposed rate spread, compared to the average retail increase of 11.36%. This is about 150% of the average increase, despite the fact that Rate E-32 L is earning an above average rate of return (index of 1.31). There simply is no basis for the Company's proposal, which is clearly inconsistent

with the stated objectives relied on by APS (cost of service, gradualism). At the same time, APS is proposing an average percentage increase to the residential class, despite the fact that residential customers are currently paying rates covering only 73% of cost of service. As I noted, the entire general service rate class is receiving a system average increase, despite the fact that present rates are substantially above cost of service.

Q. Does the Company's proposed rate spread result in a reduction in the dollar subsidies that exist in present rates?

A. Not in any material manner. Table 3 shows a comparison between present and proposed subsidies by rate schedule based on the Company's rate spread.

Table 3 APS Present and Proposed Rate Class Subsidies (\$1,000)				
<u>Class</u>	Present Subsidy	Proposed Subsidy	Subsidy Reduction	
Residential	(125,177)	(124,161)	1.02	
General Service	127,407	126,771	(0.64)	
Irrigation	(1,686)	(1,482)	0.20	
Street Lighting	(1,226)	(1,590)	(0.36)	
Dusk to Dawn Lt	682	462	(0.22)	

Q. What conclusions have you made regarding the Company's proposed rate spread?

1 A. The APS proposal is not reasonable, is inconsistent with the Company's own objectives, and will only exacerbate the existing disparities between rates and cost of service.

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Q. Have you developed an alternative rate spread recommendation that more reasonably reflects the APS cost of service results and gradualism?

A. Yes. Baron Exhibit__(SJB-4) shows the development my recommended rate spread that reduces rate/cost disparities and reflects gradualism. Table 4 summarizes my recommendation.

10

TABLE 4 Recemmended Rate Spread				
	Proposed		% Deviation	
Class	<u>Increase</u>	Percent	From Average	
Residential	132,018	14.36%	3.00%	
General Svc	57,498	7.63%	-3.73%	
Irrigation	1,843	14.36%	3.00%	
Street Light	2,167	14.36%	3.00%	
Dusk to Dawn	567	7.63%	-3.73%	
Total Retail	194,093	11.36%	0.00%	

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Q. Does your recommended rate spread eliminate all rate subsidies?

1 A. No. I recognize that this would not be realistic, given the impact on residential 2 customers. It would also be inconsistent with the regulatory concept of gradualism. 3 Though this would be an ideal result and one that should be recognized as a longerterm goal in future rate proceedings, I am not recommending the elimination of all 4 subsidies in this proceeding. However, there is no justification for increasing the 5 6 disparities, given the existing situation. Some mitigation of the subsidies should be 7 made in this case. At the same time, it is unreasonable to completely ignore the results of the Company's cost of service study. 8

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III. RATE E-32 L RATE DESIGN

Q. Have you reviewed APS' proposal to redesign Rate E-32 L by eliminating the current hours-use kWh rate design and shifting demand cost recovery to the kW demand charges of the rate?

A. Yes. I have reviewed the Company's proposal and support the revision to the E-32 L rate design. Kroger has consistently supported cost of service based rates, which will recover all demand related costs through a properly designed demand charge.

Q. Do you have any concerns with the Company's proposed increases to the redesigned Rate E-32 L demand and energy charges?

A. Yes. Based on my analysis, APS is proposing larger increases to higher load factor E-32 L customers than to lower load factor customers. There is no evidence to support this rate design. Baron Exhibit__(SJB-5), pages 1 and 2, show a revised typical bill analysis for Rate E-32 L that properly reflects the roll-in of the current negative PSA and the RES charge. As can be seen in this exhibit, higher load factor E-32 L customers are receiving larger percentage increases in both the winter and the summer than lower load factor customers.⁵

⁵ A small number of extremely low load factor customers do receive larger increases due to the movement of demand costs from the 1st hours-use energy block to the demand charge of the rate.

1	Q.	How does APS' proposed E-32 L energy charge compare to the unit energy
2		cost per kWh from the Company's cost of service study?

Table 5 below shows this comparison. After removing the base fuel cost from both the unit cost rate per kWh and the proposed energy rate, the proposed non-fuel energy rate is 40% to 70% higher than cost of service. This difference cannot be justified, even considering the subsidy amount added to Rate E-32 L. Since the subsidy is effectively an additional rate of return paid built into the rate, it is reasonably related to rate base. The energy portion of E-32 L rate base is less than 1% of the overall rate base assigned to this rate schedule. Thus, even the large dollar subsidy built-in to the E-32 L rate cannot justify the excessive non-fuel energy charge proposed by APS.

A.

	Table 5			
	Rate E-32 L Unit Energy Cost			
			Non-Fuel	
	Unit Cost Data	Base Fuel	Unit Cost	Percent
Energy Related Rev. Req.	140,655,737			
E-32 L kWh	3,647,138,609			
Unit Energy Cost	0.038566	0.03242	0.00615	
Proposed E-32 L Energy Rate				
Summer	0.059350	0.03242	0.02694	
Winter	0.042490	0.03242	0.01008	
Excess Non-Fuel Energy Charge				
Summer			0.02078	
Winter			0.00392	
Excess Non-Fuel Energy Charge - Percent				
Summer				77.2%
Winter				38.9%

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Table 6 shows an analysis of the proposed increase in the E-32 L non-fuel energy rate. As can be seen, on a weighted average basis (summer and winter charges weighted by respective period kWh), the Company is proposing a 39% increase to this charge. Finally, the table also shows that APS' proposed non-fuel energy rate should actually be decreased on a cost of service basis by 55%.

1	Table 6			
Rate E-32 L Exces	ss Energy Rate Anal	ysis		
	Present/Proposed		Non-Fuel	Percent
	Rates	Base Fuel	Unit Cost	<u>Increase</u>
Present E-32 L Energy Rate (2nd Blk)				
Summer	0.05902	0.03757	0.02145	
Winter	0.04239	0.03757	0.00482	
Weighted Average			0.01386	
Proposed E-32 L Energy Rate				
Summer	0.059350	0.03242	0.02694	
Winter	0.042490	0.03242	0.01008	,
Weighted Average			0.01924	
APS Proposed Increase in Non-Fuel Energy Rate				
Summer			0.00549	25.6%
Winter			0.00526	109.1%
Weighted Average			0.00538	38.8%
Increase Supported by Unit Cost of Service (based on w	td. Avg. rates)			-55.6%

 Based on these results, the Company's E-32 L rate should be modified such that, after accounting for the shift of demand cost recovery from the 1st hours-use energy block to the demand charge (as proposed by APS), the restructured demand and energy charges should be increased by a uniform percentage. To accomplish this objective, it is appropriate to use a three step process:

- 1. Remove demand costs from the 1st hours-use energy block of the present rate and shift these costs to the demand charge of the rate. This is a revenue neutral change.
- 2. Pro-form the proposed level of base fuel into the present rate, reflecting the Company's proposed roll-in of the PSA.
- 3. Uniformly increase both demand and energy charges (as revised in steps 1 and 2) based on the approved base rate increase in this case.

6	A.	Yes.
5	Q.	Does that complete your testimony?
4		
3	•	higher load factor E-32 L customers.
2		increases to Rate E-32 L customers and not result in large than average increases to
1		Applying this three step approach sequentially, will produce a reasonable set of

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

GARY PIERCE, CHAIRMAN BOB STUMP SANDRA D. KENNEDY PAUL NEWMAN BRENDA BURNS

ARIZONA PUBLIC SERVICE COMPANY FOR A HEARING TO DETERMINE THE FAIR VALUE OF THE UTILITY PROPERTY OF THE COMPANY FOR RATEMAKING PURPOSES, TO FIX A JUST AND REASONABLE RATE OF RETURN THEREON, TO APPROVE RATE SCHEDULES DESIGNED TO DEVELOP SUCH RETURN)	IN THE MATTER OF THE APPLICATION OF)
OF THE UTILITY PROPERTY OF THE COMPANY) Docket No. E-01345A-11-022 FOR RATEMAKING PURPOSES, TO FIX A JUST) AND REASONABLE RATE OF RETURN) THEREON, TO APPROVE RATE SCHEDULES)	ARIZONA PUBLIC SERVICE COMPANY FOR)
FOR RATEMAKING PURPOSES, TO FIX A JUST AND REASONABLE RATE OF RETURN THEREON, TO APPROVE RATE SCHEDULES)	A HEARING TO DETERMINE THE FAIR VALUE)
AND REASONABLE RATE OF RETURN) THEREON, TO APPROVE RATE SCHEDULES)	OF THE UTILITY PROPERTY OF THE COMPANY) Docket No. E-01345A-11-0224
THEREON, TO APPROVE RATE SCHEDULES)	FOR RATEMAKING PURPOSES, TO FIX A JUST)
	AND REASONABLE RATE OF RETURN)
DESIGNED TO DEVELOP SUCH RETURN)	THEREON, TO APPROVE RATE SCHEDULES)
	DESIGNED TO DEVELOP SUCH RETURN)

EXHIBITS

OF

STEPHEN J. BARON

ON BEHALF OF THE

KROGER CO.

J. KENNEDY AND ASSOCIATES, INC. ROSWELL, GEORGIA

AFFIDAVIT

STATE OF GEORGIA				
COUNTY OF FULTON	,			

STEPHEN J. BARON, being duly sworn, deposes and states: that the attached is his sworn testimony and that the statements contained are true and correct to the best of his knowledge, information and belief.

Stephen J. Baron

Sworn to and subscribed before me on this 30th day of November 2011.

Notary Public

COUNTY THE COUNTY THE

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

GARY PIERCE, CHAIRMAN BOB STUMP SANDRA D. KENNEDY PAUL NEWMAN BRENDA BURNS

IN THE MATTER OF THE APPLICATION OF)
ARIZONA PUBLIC SERVICE COMPANY FOR	
A HEARING TO DETERMINE THE FAIR VALUE)
OF THE UTILITY PROPERTY OF THE COMPANY) Docket No. E-01345A-11-0224
FOR RATEMAKING PURPOSES, TO FIX A JUST)
AND REASONABLE RATE OF RETURN)
THEREON, TO APPROVE RATE SCHEDULES)
DESIGNED TO DEVELOP SUCH RETURN	·

EXHIBIT_(SJB-1)

OF

STEPHEN J. BARON

COST OF SERVICE/RATE DESIGN

ON BEHALF OF THE

KROGER CO.

J. KENNEDY AND ASSOCIATES, INC. ROSWELL, GEORGIA

Expert Testimony Appearances of Stephen J. Baron As of November 2011

Date	Case	Jurisdict.	Party	Utility	Subject	
4/81	203(B)	KY	Louisville Gas & Electric Co.	Louisville Gas & Electric Co.	Cost-of-service.	
4/81	ER-81-42	MO	Kansas City Power & Light Co.	Kansas City Power & Light Co.	Forecasting.	
6/81	U-1933	AZ	Arizona Corporation Commission	Tucson Electric Co.	Forecasting planning.	
2/84	8924	KY	Airco Carbide	Louisville Gas & Electric Co.	Revenue requirements, cost-of-service, forecasting, weather normalization.	
3/84	84-038-U	AR	Arkansas Electric Energy Consumers	Arkansas Power & Light Co.	Excess capacity, cost-of-service, rate design.	
5/84	830470-EI	FL	Florida Industrial Power Users' Group	Florida Power Corp.	Allocation of fixed costs, load and capacity balance, and reserve margin. Diversification of utility.	
10/84	84-199-U	AR	Arkansas Electric Energy Consumers	Arkansas Power and Light Co.	Cost allocation and rate design.	
11/84	R-842651	PA	Lehigh Valley Power Committee	Pennsylvania Power & Light Co.	Interruptible rates, excess capacity, and phase-in.	
1/85	85-65	ME	Airco Industrial Gases	Central Maine Power Co.	Interruptible rate design.	
2/85	I-840381	PA	Philadelphia Area Industrial Energy Users' Group	Philadelphia Electric Co.	Load and energy forecast.	
3/85	9243	KY	Alcan Aluminum Corp., et al.	Louisville Gas & Electric Co.	Economics of completing fossil generating unit.	
3/85	3498-U	GA	Attorney General	Georgia Power Co.	Load and energy forecasting, generation planning economics.	
3/85	R-842632	PA	West Penn Power Industrial Intervenors	West Penn Power Co.	Generation planning economics, prudence of a pumped storage hydro unit.	
5/85	84-249	AR	Arkansas Electric Energy Consumers	Arkansas Power & Light Co.	Cost-of-service, rate design return multipliers.	
5/85		City of	Chamber of	Santa Clara	Cost-of-service, rate design.	

Expert Testimony Appearances of Stephen J. Baron As of November 2011

Date	Case	Jurisdict.	Party	Utility	Subject
		Santa Clara	Commerce	Municipal	
6/85	84-768- E-42T	WV	West Virginia Industrial Intervenors	Monongahela Power Co.	Generation planning economics, prudence of a pumped storage hydro unit.
6/85	E-7 Sub 391	NC	Carolina Industrials (CIGFUR III)	Duke Power Co.	Cost-of-service, rate design, interruptible rate design.
7/85	29046	NY	Industrial Energy Users Association	Orange and Rockland Utilities	Cost-of-service, rate design.
10/85	85-043-U	AR	Arkansas Gas Consumers	Arkla, Inc.	Regulatory policy, gas cost-of- service, rate design.
10/85	85-63	ME	Airco Industrial Gases	Central Maine Power Co.	Feasibility of interruptible rates, avoided cost.
2/85	ER- 8507698	NJ	Air Products and Chemicals	Jersey Central Power & Light Co.	Rate design.
3/85	R-850220	PA	West Penn Power Industrial Intervenors	West Penn Power Co.	Optimal reserve, prudence, off-system sales guarantee plan.
2/86	R-850220	PA	West Penn Power Industrial Intervenors	West Penn Power Co.	Optimal reserve margins, prudence, off-system sales guarantee plan.
3/86	85-299U	AR	Arkansas Electric Energy Consumers	Arkansas Power & Light Co.	Cost-of-service, rate design, revenue distribution.
3/86	85-726- EL-AIR	OH	Industrial Electric Consumers Group	Ohio Power Co.	Cost-of-service, rate design, interruptible rates.
5/86	86-081- E-Gl	WV	West Virginia Energy Users Group	Monongahela Power Co.	Generation planning economics, prudence of a pumped storage hydro unit.
8/86	E-7 Sub 408	NC	Carolina Industrial Energy Consumers	Duke Power Co.	Cost-of-service, rate design, interruptible rates.
10/86	U-17378	LA	Louisiana Public Service Commission Staff	Gulf States Utilities	Excess capacity, economic analysis of purchased power.
12/86	38063	IN	Industrial Energy	Indiana & Michigan	Interruptible rates.

J. KENNEDY AND ASSOCIATES, INC.

Date	Case	Jurisdict.	Party	Utility	Subject
			Consumers	Power Co.	
3/87	EL-86- 53-001 EL-86- 57-001	Federal Energy Regulatory Commission (FERC)	Louisiana Public Service Commission Staff	Gulf States Utilities, Southem Co.	Cost/benefit analysis of unit power sales contract.
4/87	U-17282	LA	Louisiana Public Service Commission Staff	Gulf States Utilities	Load forecasting and imprudence damages, River Bend Nuclear unit.
5/87	87-023- E-C	WV	Airco Industrial Gases	Monongahela Power Co.	Interruptible rates.
5/87	87-072- E-G1	WV	West Virginia Energy Users' Group	Monongahela Power Co.	Analyze Mon Power's fuel filing and examine the reasonableness of MP's claims.
5/87	86-524- E-SC	WV	West Virginia Energy Users' Group	Monongahela Power Co.	Economic dispatching of pumped storage hydro unit.
5/87	9781	KY	Kentucky Industrial Energy Consumers	Louisville Gas & Electric Co.	Analysis of impact of 1986 Tax Reform Act.
6/87	3673-U	GA	Georgia Public Service Commission	Georgia Power Co.	Economic prudence, evaluation of Vogtle nuclear unit - load forecasting, planning.
6/87	U-17282	LA	Louisiana Public Service Commission Staff	Gulf States Utilities	Phase-in plan for River Bend Nuclear unit.
7/87	85-10-22	СТ	Connecticut Industrial Energy Consumers	Connecticut Light & Power Co.	Methodology for refunding rate moderation fund.
8/87	3673-U	GA	Georgia Public Service Commission	Georgia Power Co.	Test year sales and revenue forecast.
9/87	R-850220	PA	West Penn Power Industrial Intervenors	West Penn Power Co.	Excess capacity, reliability of generating system.
10/87	R-870651	PA	Duquesne Industrial Intervenors	Duquesne Light Co.	Interruptible rate, cost-of- service, revenue allocation, rate design.

Date	Case	Jurisdict.	Party	Utility	Subject
10/87	I-860025	PA	Pennsylvania Industrial Intervenors		Proposed rules for cogeneration, avoided cost, rate recovery.
10/87	E-015/ GR-87-223	MN	Taconite Intervenors	Minnesota Power & Light Co.	Excess capacity, power and cost-of-service, rate design.
10/87	8702-EI	FL	Occidental Chemical Corp.	Florida Power Corp.	Revenue forecasting, weather normalization.
12/87	87-07-01	СТ	Connecticut Industrial Energy Consumers	Connecticut Light Power Co.	Excess capacity, nuclear plant phase-in.
3/88	10064	KY	Kentucky Industrial Energy Consumers	Louisville Gas & Electric Co.	Revenue forecast, weather normalization rate treatment of cancelled plant.
3/88	87-183-TF	AR	Arkansas Electric Consumers	Arkansas Power & Light Co.	Standby/backup electric rates.
5/88	870171C00	1 PA	GPU Industrial Intervenors	Metropolitan Edison Co.	Cogeneration deferral mechanism, modification of energy cost recovery (ECR).
6/88	870172C00	5 PA	GPU Industrial Intervenors	Pennsylvania Electric Co.	Cogeneration deferral mechanism, modification of energy cost recovery (ECR).
7/88	88-171- EL-AIR 88-170- EL-AIR Interim Rate	OH e Case	Industrial Energy Consumers	Cleveland Electric/ Toledo Edison	Financial analysis/need for interim rate relief.
7/88	Appeal of PSC	19th Judicial Docket U-17282	Louisiana Public Service Commission Circuit Court of Louisiana	Gulf States Utilities	Load forecasting, imprudence damages.
11/88	R-880989	PA	United States Steel	Carnegie Gas	Gas cost-of-service, rate design.
11/88	88-171- EL-AIR 88-170- EL-AIR	ОН	Industrial Energy Consumers	Cleveland Electric/ Toledo Edison. General Rate Case.	Weather normalization of peak loads, excess capacity, regulatory policy.
3/89	870216/283 284/286	3 PA	Armco Advanced Materials Corp.,	West Penn Power Co.	Calculated avoided capacity, recovery of capacity payments.

Date	Case	Jurisdict.	Party	Utility	Subject
			Allegheny Ludlum Corp.		
8/89	8555	TX	Occidental Chemical Corp.	Houston Lighting & Power Co.	Cost-of-service, rate design.
8/89	3840-U	GA	Georgia Public Service Commission	Georgia Power Co.	Revenue forecasting, weather normalization.
9/89	2087	NM	Attorney General of New Mexico	Public Service Co. of New Mexico	Prudence - Palo Verde Nuclear Units 1, 2 and 3, load fore- casting.
10/89	2262	NM	New Mexico Industrial Energy Consumers	Public Service Co. of New Mexico	Fuel adjustment clause, off- system sales, cost-of-service, rate design, marginal cost.
11/89	38728	IN	Industrial Consumers for Fair Utility Rates	Indiana Michigan Power Co.	Excess capacity, capacity equalization, jurisdictional cost allocation, rate design, interruptible rates.
1/90	U-17282	LA	Louisiana Public Service Commission Staff	Gulf States Utilities	Jurisdictional cost allocation, O&M expense analysis.
5/90	890366	PA	GPU Industrial Intervenors	Metropolitan Edison Co.	Non-utility generator cost recovery.
6/90	R-901609	PA .	Armco Advanced Materials Corp., Allegheny Ludium Corp.	West Penn Power Co.	Allocation of QF demand charges in the fuel cost, cost-of-service, rate design.
9/90	8278	MD	Maryland Industrial Group	Baltimore Gas & Electric Co.	Cost-of-service, rate design, revenue allocation.
12/90	U-9346 Rebuttal	MI	Association of Businesses Advocating Tariff Equity	Consumers Power Co.	Demand-side management, environmental externalities.
12/90	U-17282 Phase IV	LA	Louisiana Public Service Commission Staff	Gulf States Utilities	Revenue requirements, jurisdictional allocation.
12/90	90-205	ME	Airco Industrial Gases	Central Maine Power Co.	Investigation into interruptible service and rates.

Date	Case	Jurisdict.	Party	Utility	Subject
1/91	90-12-03 Interim	СТ	Connecticut Industrial Energy Consumers	Connecticut Light & Power Co.	Interim rate relief, financial analysis, class revenue allocation.
5/91	90-12-03 Phase II	СТ	Connecticut Industrial Energy Consumers	Connecticut Light & Power Co.	Revenue requirements, cost-of- service, rate design, demand-side management.
8/91	E-7, SUB SUB 487	NC	North Carolina Industrial Energy Consumers	Duke Power Co.	Revenue requirements, cost allocation, rate design, demand-side management.
8/91	8341 Phase !	MD	Westvaco Corp.	Potomac Edison Co.	Cost allocation, rate design, 1990 Clean Air Act Amendments.
8/91	91-372	ОН	Armco Steel Co., L.P.	Cincinnati Gas &	Economic analysis of
	EL-UNC			Electric Co.	cogeneration, avoid cost rate.
9/91	P-910511 P-910512	PA	Allegheny Ludium Corp., Armco Advanced Materials Co., The West Penn Power Industrial Users' Group	West Penn Power Co.	Economic analysis of proposed CWIP Rider for 1990 Clean Air Act Amendments expenditures.
9/91	91-231 -E-NC	WV	West Virginia Energy Users' Group	Monongahela Power Co.	Economic analysis of proposed CWIP Rider for 1990 Clean Air Act Amendments expenditures.
10/91	8341 - Phase II	MD	Westvaco Corp.	Potomac Edison Co.	Economic analysis of proposed CWIP Rider for 1990 Clean Air Act Amendments expenditures.
10/91	U-17282	LA	Louisiana Public Service Commission Staff	Gulf States Utilities	Results of comprehensive management audit.
	o testimony filed on this.		•		
11/91	U-17949 Subdocket A	LA	Louisiana Public Service Commission Staff	South Central Bell Telephone Co. and proposed merger with Southern Bell Telephone Co.	Analysis of South Central Bell's restructuring and
12/91	91-410- EL-AIR	ОН	Armco Steel Co., Air Products & Chemicals, Inc.	Cincinnati Gas & Electric Co.	Rate design, interruptible rates.

Date	Case	Jurisdict.	Party	Utility	Subject
12/91	P-880286	PA	Armco Advanced Materials Corp., Allegheny Ludlum Corp.	West Penn Power Co.	Evaluation of appropriate avoided capacity costs - QF projects.
1/92	C-913424	PA	Duquesne Interruptible Complainants	Duquesne Light Co.	Industrial interruptible rate.
6/92	92-02-19	СТ	Connecticut Industrial Energy Consumers	Yankee Gas Co.	Rate design.
8/92	2437	NM	New Mexico Industrial Intervenors	Public Service Co. of New Mexico	Cost-of-service.
8/92	R-00922314	PA	GPU Industrial Intervenors	Metropolitan Edison Co.	Cost-of-service, rate design, energy cost rate.
9/92	39314	ID	Industrial Consumers for Fair Utility Rates	Indiana Michigan Power Co.	Cost-of-service, rate design, energy cost rate, rate treatment.
10/92	M-00920312 C-007	PA	The GPU Industrial Intervenors	Pennsylvania Electric Co.	Cost-of-service, rate design, energy cost rate, rate treatment.
12/92	U-17949	LA	Louisiana Public Service Commission Staff	South Central Bell Co.	Management audit.
12/92	R-00922378	PA	Armco Advanced Materials Co. The WPP Industrial Intervenors	West Penn Power Co.	Cost-of-service, rate design, energy cost rate, SO ₂ allowance rate treatment.
1/93	8487	MD	The Maryland Industrial Group	Baltimore Gas & Electric Co.	Electric cost-of-service and rate design, gas rate design (flexible rates).
2/93	E002/GR- 92-1185	MN	North Star Steel Co. Praxair, Inc.	Northern States Power Co.	Interruptible rates.
4/93	EC92 21000 ER92-806- 000 (Rebuttal)	Federal Energy Regulatory Commission	Louisiana Public Service Commission Staff	Gulf States Utilities/Entergy agreement.	Merger of GSU into Entergy System; impact on system
7/93	93-0114- E-C	WV	Airco Gases	Monongahela Power Co.	Interruptible rates.

Date	Case	Jurisdict.	Party	Utility	Subject
8/93	930759-EG	FL	Florida Industrial Power Users' Group	Generic - Electric Utilities	Cost recovery and allocation of DSM costs.
9/93	M-009 30406	PA	Lehigh Valley Power Committee	Pennsylvania Power & Light Co.	Ratemaking treatment of off-system sales revenues.
11/93	34 6	KY	Kentucky Industrial Utility Customers	Generic - Gas Utilities	Allocation of gas pipeline transition costs - FERC Order 636.
12/93	U-17735	LA	Louisiana Public Service Commission Staff	Cajun Electric Power Cooperative	Nuclear plant prudence, forecasting, excess capacity.
4/94	E-015/ GR-94-001	MN	Large Power Intervenors	Minnesota Power Co.	Cost allocation, rate design, rate phase-in plan.
5/94	U-20178	LA	Louisiana Public Service Commission	Louisiana Power & Light Co.	Analysis of least cost integrated resource plan and demand-side management program.
7/94	R-00942986	PA .	Armco, Inc.; West Penn Power Industrial Intervenors	West Penn Power Co.	Cost-of-service, allocation of rate increase, rate design, emission allowance sales, and operations and maintenance expense.
7/94	94-0035- E-42T	WV	West Virginia Energy Users Group	Monongahela Power Co.	Cost-of-service, allocation of rate increase, and rate design.
8/94	EC94 13-000	Federal Energy Regulatory Commission	Louisiana Public Service Commission	Gulf States Utilities/Entergy	Analysis of extended reserve shutdown units and violation of system agreement by Entergy.
9/94	R-00943 081 R-00943 081C0001	PA	Lehigh Valley Power Committee	Pennsylvania Public Utility Commission	Analysis of interruptible rate terms and conditions, availability.
9/94	U-17735	LA	Louisiana Public Service Commission	Cajun Electric Power Cooperative	Evaluation of appropriate avoided cost rate.
9/94	U-19904	LA	Louisiana Public Service Commission	Gulf States Utilities	Revenue requirements.
10/94	5258-U	GA	Georgia Public Service Commission	Southern Bell Telephone & Telegraph Co.	Proposals to address competition in telecommunication markets.

Date	Case	Jurisdict.	Party	Utility	Subject
11/94	EC94-7-000 ER94-898-00		Louisiana Public Service Commission	El Paso Electric and Central and Southwest	Merger economics, transmission equalization hold harmless proposals.
2/95	941-430EG	СО	CF&I Steel, L.P.	Public Service Company of Colorado	Interruptible rates, cost-of-service.
4/95	R-00943271	PA	PP&L Industrial Customer Alliance	Pennsylvanía Power & Light Co.	Cost-of-service, allocation of rate increase, rate design, interruptible rates.
6/95	C-00913424 C-00946104	PA	Duquesne Interruptible Complainants	Duquesne Light Co.	Interruptible rates.
8/95	ER95-112 -000	FERC	Louisiana Public Service Commission	Entergy Services, Inc.	Open Access Transmission Tariffs - Wholesale.
10/95	U-21485	LA	Louisiana Public Service Commission	Gulf States Utilities Company	Nuclear decommissioning, revenue requirements, capital structure.
10/95	ER95-1042 -000	FERC	Louisiana Public Service Commission	System Energy Resources, Inc.	Nuclear decommissioning, revenue requirements.
10/95	U-21485	LA	Louisiana Public Service Commission	Gulf States Utilities Co.	Nuclear decommissioning and cost of debt capital, capital structure.
11/95	1-940032	PA	Industrial Energy Consumers of Pennsylvania	State-wide - all utilities	Retail competition issues.
7/96	U-21496	LA	Louisiana Public Service Commission	Central Louisiana Electric Co.	Revenue requirement analysis.
7/96	8725	MD	Maryland Industrial Group	Baltimore Gas & Elec. Co., Potomac Elec. Power Co., Constellation Energy Co.	Ratemaking issues associated with a Merger.
8/96	U-17735	LA	Louisiana Public Service Commission	Cajun Electric Power Cooperative	Revenue requirements.
9/96	U-22092	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Decommissioning, weather normalization, capital structure.

Date	Case	Jurisdict.	Party	Utility	Subject
2/97	R-973877	PA	Philadelphia Area Industrial Energy Users Group	PECO Energy Co.	Competitive restructuring policy issues, stranded cost, transition charges.
6/97	Civil Action No. 94-11474	US Bank- ruptcy Court Middle District of Louisiana	Louisiana Public Service Commission	Cajun Electric Power Cooperative	Confirmation of reorganization plan; analysis of rate paths produced by competing plans.
6/97	R-973953	PA	Philadelphia Area Industrial Energy Users Group	PECO Energy Co.	Retail competition issues, rate unbundling, stranded cost analysis.
6/97	8738	MD	Maryland Industrial Group	Generic	Retail competition issues
7/97	R-973954	PA	PP&L Industrial Customer Alliance	Pennsylvania Power & Light Co.	Retail competition issues, rate unbundling, stranded cost analysis.
10/97	97-204	КҮ	Alcan Aluminum Corp. Southwire Co.	Big River Electric Corp.	Analysis of cost of service issues - Big Rivers Restructuring Plan
10/97	R-974008	PA	Metropolitan Edison Industrial Users	Metropolitan Edison Co.	Retail competition issues, rate unbundling, stranded cost analysis.
10/97	R-974009	PA	Pennsylvania Electric Industrial Customer	Pennsylvania Electric Co.	Retail competition issues, rate unbundling, stranded cost analysis.
11/97	U-22491	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Decommissioning, weather normalization, capital structure.
11/97	P-971265	PA	Philadelphia Area Industrial Energy Users Group	Enron Energy Services Power, Inc./ PECO Energy	Analysis of Retail Restructuring Proposal.
12/97	R-973981	PA	West Penn Power Industrial Intervenors	West Penn Power Co.	Retail competition issues, rate unbundling, stranded cost analysis.
12/97	R-974104	PA	Duquesne Industrial Intervenors	Duquesne Light Co.	Retail competition issues, rate unbundling, stranded cost analysis.
3/98 (Allocat Cost Iss	U-22092 ed Stranded sues)	LA	Louisiana Public Service Commission	Gulf States Utilities Co.	Retail competition, stranded cost quantification.

Date	Case	Jurisdict.	Party	Utility	Subject
3/98	U-22092		Louisiana Public Service Commission	Gulf States Utilities, Inc.	Stranded cost quantification, restructuring issues.
9/98	U-17735		Louisiana Public Service Commission	Cajun Electric Power Cooperative, Inc.	Revenue requirements analysis, weather normalization.
12/98	8794	MD	Maryland Industrial Group and Millennium Inorganic Chemicals Inc.	Baltimore Gas and Electric Co.	Electric utility restructuring, stranded cost recovery, rate unbundling.
12/98	U-23358	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Nuclear decommissioning, weather normalization, Entergy System Agreement.
5/99 (Cross- Answer	EC-98- 40-000 ing Testimony)	FERC	Louisiana Public Service Commission	American Electric Power Co. & Central South West Corp.	Merger issues related to market power mitigation proposals.
5/99 (Respon Testimo		KY	Kentucky Industrial Utility Customers, Inc.	Louisville Gas & Electric Co.	Performance based regulation, settlement proposal issues, cross-subsidies between electric. gas services.
6/99	98-0452	WV	West Virginia Energy Users Group	Appalachian Power, Monongahela Power, & Potomac Edison Companies	Electric utility restructuring, stranded cost recovery, rate unbundling.
7/99	99-03-35	СТ	Connecticut Industrial \Energy Consumers	United Illuminating Company	Electric utility restructuring, stranded cost recovery, rate unbundling.
7/99	Adversary Proceeding No. 98-1065	U.S. Bankruptcy Court	Louisiana Public Service Commission	Cajun Electric Power Cooperative	Motion to dissolve preliminary injunction.
7/99	99-03-06	CT	Connecticut Industrial Energy Consumers	Connecticut Light & Power Co.	Electric utility restructuring, stranded cost recovery, rate unbundling.
10/99	U-24182	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Nuclear decommissioning, weather normalization, Entergy System Agreement.
12/99	U-17735	LA	Louisiana Public Service Commission	Cajun Electric Power Cooperative, Inc.	Ananlysi of Proposed Contract Rates, Market Rates.

Date	Case	Jurisdict.	Party	Utility	Subject
03/00	U-17735	LA	Louisiana Public Service Commission	Cajun Electric Power Cooperative, Inc.	Evaluation of Cooperative Power Contract Elections
03/00	99-1658- EL-ETP	ОН	AK Steel Corporation	Cincinnati Gas & Electric Co.	Electric utility restructuring, stranded cost recovery, rate Unbundling.
08/00	98-0452 E-Gl	WVA	West Virginia Energy Users Group	Appalachian Power Co. American Electric Co.	Electric utility restructuring rate unbundling.
08/00	00-1050 E-T 00-1051-E-T	WVA	West Virginia Energy Users Group	Mon Power Co. Potomac Edison Co.	Electric utility restructuring rate unbundling.
10/00	SOAH 473- 00-1020 PUC 2234	тх	The Dallas-Fort Worth Hospital Council and The Coalition of Independent Colleges And Universities	TXU, Inc.	Electric utility restructuring rate unbundling.
12/00	U-24993	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Nuclear decommissioning, revenue requirements.
12/00	EL00-66- 000 & ER00 EL95-33-002		Louisiana Public Service Commission	Entergy Services Inc.	Inter-Company System Agreement: Modifications for retail competition, interruptible load.
04/01	U-21453, U-20925, U-22092 (Subdocket Addressing	LA B) Contested Issue	Louisiana Public Service Commission es	Entergy Gulf States, Inc.	Jurisdictional Business Separation - Texas Restructuring Plan
10/01	14000-U	GA	Georgia Public Service Commission Adversary Staff	Georgia Power Co.	Test year revenue forecast.
11/01	U-25687	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Nuclear decommissioning requirements transmission revenues.
11/01	U-25965	LA	Louisiana Public Service Commission	Generic	Independent Transmission Company ("Transco"). RTO rate design.
03/02	001148-EI	FL	South Florida Hospital and Healthcare Assoc.	Florida Power & Light Company	Retail cost of service, rate design, resource planning and demand side management.

Date	Case	Jurisdict.	Party	Utility	Subject
06/02	U-25965	LA	Louisiana Public Service Commission	Entergy Gulf States Entergy Louisiana	RTO Issues
07/02	U-21453	LA	Louisiana Public Service Commission	SWEPCO, AEP	Jurisdictional Business Sep Texas Restructuring Plan.
08/02	U-25888	LA	Louisiana Public Service Commission	Entergy Louisiana, Inc. Entergy Gulf States, Inc.	Modifications to the Inter- Company System Agreement, Production Cost Equalization.
08/02	EL01- 88-000	FERC	Louisiana Public Service Commission	Entergy Services Inc. and the Entergy Operating Companies	Modifications to the Inter- Company System Agreement, Production Cost Equalization.
11/02	02S-315EG	СО	CF&l Steel & Climax Molybdenum Co.	Public Service Co. of Colorado	Fuel Adjustment Clause
01/03	U-17735	LA	Louisiana Public Service Commission	Louisiana Coops	Contract Issues
02/03	02S-594E	СО	Cripple Creek and Victor Gold Mining Co.	Aquila, Inc.	Revenue requirements, purchased power.
04/03	U-26527	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Weather normalization, power purchase expenses, System Agreement expenses.
11/03	ER03-753-0	00 FERC	Louisiana Public Service Commission Staff	Entergy Services, Inc. and the Entergy Operating Companies	Proposed modifications to System Agreement Tariff MSS-4.
11/03	ER03-583-0 ER03-583-0 ER03-583-0	01	Louisiana Public Service Commission	Entergy Services, Inc., the Entergy Operating Companies, EWO Market-	Evaluation of Wholesale Purchased Power Contracts.
	ER03-681-0 ER03-681-0	•		Ing, L.P, and Entergy Power, Inc.	
	ER03-682-0 ER03-682-0 ER03-682-0	01			
12/03	U-27136	LA	Louisiana Public Service Commission	Entergy Louisiana, Inc.	Evaluation of Wholesale Purchased Power Contracts.
01/04	E-01345- 03-0437	AZ	Kroger Company	Arizona Public Service Co.	Revenue allocation rate design.
02/04	00032071	PA	Duquesne Industrial Intervenors	Duquesne Light Company	Provider of last resort issues.

Date	Case	Jurisdict.	Party	Utility	Subject
03/04	03A-436E	СО	CF&l Steel, LP and Climax Molybedenum	Public Service Company of Colorado	Purchased Power Adjustment Clause.
04/04	2003-00433 2003-00434	KY	Kentucky Industrial Utility Customers, Inc.	Louisville Gas & Electric Co. Kentucky Utilities Co.	Cost of Service Rate Design
0-6/04	03S-539E	СО	Cripple Creek, Victor Gold Mining Co., Goodrich Corp., Holcim (U.S.,), Inc., and The Trane Co.	Aquila, Inc.	Cost of Service, Rate Design Interruptible Rates
06/04	R-00049255	PA	PP&L Industrial Customer Alliance PPLICA	PPL Electric Utilities Corp.	Cost of service, rate design, tariff issues and transmission service charge.
10/04	04S-164E	со	CF&I Steel Company, Climax Mines	Public Service Company of Colorado	Cost of service, rate design, Interruptible Rates.
03/05	Case No. 2004-00426 Case No. 2004-00421	KY	Kentucky Industrial Utility Customers, Inc.	Kentucky Utilities Louisville Gas & Electric Co.	Environmental cost recovery.
06/05	050045-EI	FL	South Florida Hospital and Healthcare Assoc.	Florida Power & Light Company	Retail cost of service, rate design
07/05	U-28155	LA	Louisiana Public Service Commission Staff	Entergy Louisiana, Inc. Entergy Gulf States, Inc.	Independent Coordinator of Transmission – Cost/Benefit
09/05	Case Nos. 05-0402-E-0 05-0750-E-F		West Virginia Energy Users Group	Mon Power Co. Potomac Edison Co.	Environmental cost recovery, Securitization, Financing Order
01/06	2005-00341	KY	Kentucky Industrial Utility Customers, Inc.	Kentucky Power Company	Cost of service, rate design, transmission expenses. Congestion
03/06	U-22092	LA	Louisiana Public Service Commission Staff	Entergy Gulf States, Inc.	Cost Recovery Mechanism Separation of EGSI into Texas and Louisiana Companies.
04/06	U-25116	LA	Louisiana Public Service Commission Staff	Entergy Louisiana, Inc.	Transmission Prudence Investigation
06/06	R-00061346 C0001-0005		Duquesne Industrial Intervenors & IECPA	Duquesne Light Co.	Cost of Service, Rate Design, Transmission Service Charge, Tariff Issues
06/06	R-00061366 R-00061367 P-00062213		Met-Ed Industrial Energy Users Group and Penelec Industrial Customer	Metropolitan Edison Co. Pennsylvania Electric Co.	Generation Rate Cap, Transmission Service Charge, Cost of Service, Rate Design, Tariff Issues

Date	Case J	urisdict.	Party	Utility	Subject
	P-00062214		Alliance		
07/06	U-22092 L Sub-J	Α .	Louisiana Public Service Commission Staff	Entergy Gulf States, Inc.	Separation of EGSI into Texas and Louisiana Companies.
07/06	Case No. K 2006-00130 Case No. 2006-00129	Υ	Kentucky Industrial Utility Customers, Inc.	Kentucky Utilities Louisville Gas & Electric Co.	Environmental cost recovery.
08/06	Case No. V/ PUE-2006-000		Old Dominion Committee For Fair Utility Rates	Appalachian Power Co.	Cost Allocation, Allocation of Rev Incr, Off-System Sales margin rate treatment
09/06	E-01345A- A 05-0816	Z	Kroger Company	Arizona Public Service Co.	Revenue allocation, cost of service, rate design.
11/06	Doc. No. CT 97-01-15RE02		Connecticut Industrial Energy Consumers	Connecticut Light & Power United Illuminating	Rate unbundling issues.
01/07	Case No. W 06-0960-E-42T	v V	West Virginia Energy Users Group	Mon Power Co. Potomac Edison Co.	Retail Cost of Service Revenue apportionment
03/07	U-29764 L	A	Louisiana Public Service Commission Staff	Entergy Gulf States, Inc. Entergy Louisiana, LLC	Implementation of FERC Decision Jurisdictional & Rate Class Allocation
05/07	Case No. O 07-63-EL-UNC	Н	Ohio Energy Group	Ohio Power, Columbus Southern Power	Environmental Surcharge Rate Design
05/07	R-00049255 P Remand	'A	PP&L Industrial Customer Alliance PPLICA	PPL Electric Utilities Corp.	Cost of service, rate design, tariff issues and transmission service charge.
06/07	R-00072155 P	PA	PP&L Industrial Customer Alliance PPLICA	PPL Electric Utilities Corp.	Cost of service, rate design, tariff issues.
07/07	Doc. No. CO 07F-037E	0	Gateway Canyons LLC	Grand Valley Power Coop.	Distribution Line Cost Allocation
09/07	Doc. No. W 05-UR-103	1	Wisconsin Industrial Energy Group, Inc.	Wisconsin Electric Power Co	 Cost of Service, rate design, tariff Issues, Interruptible rates.
11/07	ER07-682-000	FERC	Louisiana Public Service Commission Staff	Entergy Services, Inc. and the Entergy Operating Companies	Proposed modifications to System Agreement Schedule MSS-3. Cost functionalization issues.
1/08	Doc. No. V 20000-277-ER-	VY -07	Cimarex Energy Company	Rocky Mountain Power (PacifiCorp)	Vintage Pricing, Marginal Cost Pricing Projected Test Year
1/08	Case No. C 07-551	ЭH	Ohio Energy Group	Ohio Edison, Toledo Edison Cleveland Electric Illuminating	Class Cost of Service, Rate Restructuring, Apportionment of Revenue Increase to

Date	Case	Jurisdict.	Party	Utility	Subject
2/08	ER07-956	FERC	Louisiana Public Service Commission Staff	Entergy Services, Inc. and the Entergy Operating Companies	Rate Schedules Entergy's Compliance Filing System Agreement Bandwidth Calculations.
2/08	Doc No. P-00072342	PA	West Penn Power Industrial Intervenors	West Penn Power Co.	Default Service Plan issues.
3/08	Doc No. E-01933A-05	AZ 5-0650	Kroger Company	Tucson Electric Power Co.	Cost of Service, Rate Design
05/08	08-0278 E-Gl	WV	West Virginia Energy Users Group	Appalachian Power Co. American Electric Power Co.	Expanded Net Energy Cost "ENEC" Analysis.
6/08	Case No. 08-124-EL-A	OH TA	Ohio Energy Group	Ohio Edison, Toledo Edison Cleveland Electric Illuminating	Recovery of Deferred Fuel Cost
7/08	Docket No. 07-035-93	UT	Kroger Company	Rocky Mountain Power Co.	Cost of Service, Rate Design
08/08	Doc. No. 6680-UR-110	WI 6	Wisconsin Industrial Energy Group, Inc.	Wisconsin Power and Light Co.	Cost of Service, rate design, tariff Issues, Interruptible rates.
09/08	Doc. No. 6690-UR-11	WI 9	Wisconsin Industrial Energy Group, Inc.	Wisconsin Public Service Co.	Cost of Service, rate design, tariff Issues, Interruptible rates.
09/08	Case No. 08-936-EL-9		Ohio Energy Group	Ohio Edison, Toledo Edison Cleveland Electric Illuminating	Provider of Last Resort Competitive Solicitation
09/08	Case No. 08-935-EL-9		Ohio Energy Group	Ohio Edison, Toledo Edison Cleveland Electric Illuminating	Provider of Last Resort Rate Plan
09/08	Case No. 08-917-EL-5 08-918-EL-5	SSO	Ohio Energy Group	Ohio Power Company Columbus Southern Power Co	Provider of Last Resort Rate . Plan
10/08	2008-00251 2008-00252	KY	Kentucky Industrial Utility Customers, Inc.	Louisville Gas & Electric Co. Kentucky Utilities Co.	Cost of Service, Rate Design
11/08	08-1511 E-Gl	WV	West Virginia Energy Users Group	Mon Power Co. Potomac Edison Co.	Expanded Net Energy Cost "ENEC" Analysis.
11/08	M-2008- 2036188, M- 2008-203619		Met-Ed Industrial Energy Users Group and Penelec Industrial Customer Alliance	Metropolitan Edison Co. Pennsylvania Electric Co.	Transmission Service Charge
01/09	ER08-1056	FERC	Louisiana Public Service Commission	Entergy Services, Inc. and the Entergy Operating Companies	Entergy's Compliance Filing System Agreement Bandwidth Calculations.

Date	Case	Jurisdict.	Party	Utility	Subject
01/09	E-01345A- 08-0172	AZ	Kroger Company	Arizona Public Service Co.	Cost of Service, Rate Design
02/09	2008-00409	КУ	Kentucky Industrial Utility Customers, Inc.	East Kentucky Power Cooperative, Inc.	Cost of Service, Rate Design
5/09	PUE-2009 -00018	VA	VA Committee For Fair Utility Rates	Dominion Virginia Power Company	Transmission Cost Recovery Rider
5/09	09-0177- E-GI	WV	West Virginia Energy Users Group	Appalachian Power Company	Expanded Net Energy Cost "ENEC" Analysis
6/09	PUE-2009 -00016	VA	VA Committee For Fair Utility Rates	Dominion Virginia Power Company	Fuel Cost Recovery Rider
6/09	PUE-2009 -00038	VA	Old Dominion Committee For Fair Utility Rates	Appalachian Power Company	Fuel Cost Recovery Rider
7/09	080677-EI	FL	South Florida Hospital and Healthcare Assoc.	Florida Power & Light Company	Retail cost of service, rate design
8/09	U-20925 (RRF 2004)	LA	Louisiana Public Service Commission Staff	Entergy Louisiana LLC	Interruptible Rate Refund Settlement
9/09	09AL-299E	CO	CF&I Steel Company Climax Molybdenum	Public Service Company of Colorado	Energy Cost Rate issues
9/09	Doc. No. 05-UR-104	WI	Wisconsin Industrial Energy Group, Inc.	Wisconsin Electric Power Co.	Cost of Service, rate design, tariff Issues, Interruptible rates.
9/09	Doc. No. 6680-UR-11	WI 17	Wisconsin Industrial Energy Group, Inc.	Wisconsin Power and Light Co.	Cost of Service, rate design, tariff Issues, Interruptible rates.
10/09	Docket No. 09-035-23	UT	Kroger Company	Rocky Mountain Power Co.	Cost of Service, Allocation of Rev Increase
10/09	09AL-299E	СО	CF&I Steel Company Climax Molybdenum	Public Service Company of Colorado	Cost of Service, Rate Design
11/09	PUE-2009 -00019	VA	VA Committee For Fair Utility Rates	Dominion Virginia Power Company	Cost of Service, Rate Design
11/09	09-1485 E-P	WV	West Virginia Energy Users Group	Mon Power Co. Potomac Edison Co.	Expanded Net Energy Cost "ENEC" Analysis.
12/09	Case No. 09-906-EL-S	OH SO	Ohio Energy Group	Ohio Edison, Toledo Edison Cleveland Electric Illuminating	Provider of Last Resort Rate Plan

Date	Case	Jurisdict.	Party	Utility	Subject
12/09	ER09-1224	FERC	Louisiana Public Service Commission	Entergy Services, Inc. and the Entergy Operating Companies	Entergy's Compliance Filing System Agreement Bandwidth Calculations.
12/09	Case No. PUE-2009-0	VA 00030	Old Dominion Committee For Fair Utility Rates	Appalachian Power Co.	Cost Allocation, Allocation of Rev Increase, Rate Design
2/10	Docket No. 09-035-23	UT	Kroger Company	Rocky Mountain Power Co.	Rate Design
3/10	Case No. 09-1352-E-4	WV I2T	West Virginia Energy Users Group	Mon Power Co. Potomac Edison Co.	Retail Cost of Service Revenue apportionment
3/10	E015/ GR-09-1151	MN	Large Power Intervenors	Minnesota Power Co.	Cost of Service, rate design
4/10	EL09-61 FE	ERC	Louisiana Public Service Service Commission	Entergy Services, Inc. and the Entergy Operating Companies	System Agreement Issues Related to off-system sales
4/10	2009-00459	KY	Kentucky Industrial Utility Customers, Inc.	Kentucky Power Company	Cost of service, rate design, transmission expenses.
4/10	2009-00548 2009-00549	KY	Kentucky Industrial Utility Customers, Inc.	Louisville Gas & Electric Co. Kentucky Utilities Co.	Cost of Service, Rate Design
7/10	R-2010- 2161575	PA	Philadelphia Area Industrial Energy Users Group	PECO Energy Company	Cost of Service, Rate Design
09/10	2010-00167	KY	Kentucky Industrial Utility Customers, Inc.	East Kentucky Power Cooperative, Inc.	Cost of Service, Rate Design
09/10	10M-245E	CO	CF&I Steel Company Climax Molybdenum	Public Service Company of Colorado	Economic Impact of Clean Air Act
11/10	10-0699- E-42T	WV	West Virginia Energy Users Group	Appalachian Power Company	Cost of Service, Rate Design, Transmission Rider
11/10	Doc. No. 4220-UR-116	WI	Wisconsin Industrial Energy Group, Inc.	Northern States Power Co. Wisconsin	Cost of Service, rate design
12/10	10A-554EG	СО	CF&I Steel Company Climax Molybdenum	Public Service Company	Demand Side Management Issues
12/10	10-2586-EL- SSO	ОН	Ohio Energy Group	Duke Energy Ohio	Provider of Last Resort Rate Plan Electric Security Plan

Date	Case	Jurisdict.	Party	Utility	Subject
3/11	20000-384- ER-10	WY	Wyoming Industrial Energy Consumers	Rocky Mountain Power Wyoming	Electric Cost of Service, Revenue Apportionment, Rate Design
6/11	Docket No. 10-035-124	UT	Kroger Company	Rocky Mountain Power Co.	Class Cost of Service
6/11	PUE-2011 -00045	VA	VA Committee For Fair Utility Rates	Dominion Virginia Power Company	Fuel Cost Recovery Rider
07/11	U-29764	LA	Louisiana Public Service Commission Staff	Entergy Gulf States, Inc. Entergy Louisiana, LLC	Entergy System Agreement - Successor Agreement, Revisions, RTO Day 2 Market Issues
07/11	Case Nos. 11-346-EL-S 11-348-EL-S	SO	Ohio Energy Group	Ohio Power Company Columbus Southern Power Co.	Electric Security Rate Plan, Provider of Last Resort Issues
08/11	PUE-2011- 00034	VA	Old Dominion Committee For Fair Utility Rates	Appalachian Power Co.	Cost Allocation, Rate Recovery of RPS Costs
09/11	2011-00161 2011-00162	KY	Kentucky Industrial Utility	Louisville Gas & Electric Co. Kentucky Utilities Company	Environmental Cost Recovery
09/11	Case Nos. 11-346-EL-S 11-348-EL-S		Ohio Energy Group	Ohio Power Company Columbus Southern Power Co	Electric Security Rate Plan, Stipulation Support Testimony
10/11	11-0452 E-P-T	WV	West Virginia Energy Users Group	Mon Power Co. Potomac Edison Co.	Energy Efficiency/Demand Reduction Cost Recovery
11/11	11-1274 E-P	WV	West Virginia Energy Users Group	Mon Power Co. Potomac Edison Co.	Expanded Net Energy Cost "ENEC" Analysis.

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

GARY PIERCE, CHAIRMAN BOB STUMP SANDRA D. KENNEDY PAUL NEWMAN BRENDA BURNS

IN THE MATTER OF THE APPLICATION OF)
ARIZONA PUBLIC SERVICE COMPANY FOR)
A HEARING TO DETERMINE THE FAIR VALUE)
OF THE UTILITY PROPERTY OF THE COMPANY) Docket No. E-01345A-11-0224
FOR RATEMAKING PURPOSES, TO FIX A JUST)
AND REASONABLE RATE OF RETURN)
THEREON, TO APPROVE RATE SCHEDULES)
DESIGNED TO DEVELOP SUCH RETURN)

EXHIBIT_(SJB-2)

OF

STEPHEN J. BARON

COST OF SERVICE/RATE DESIGN

ON BEHALF OF THE

KROGER CO.

J. KENNEDY AND ASSOCIATES, INC. ROSWELL, GEORGIA

ARIZONA PUBLIC SERVICE COMPANY
CALCULATION OF SUBSIDIES UNDER PRESENT AND PROPOSED RATES
TEST YEAR ENDING DECEMBER 31, 2010, ADJUSTED

			ACC JURISDICTION	2		
	TOTAL	RESIDENTIAL	GENERAL	E-221 (Water	STREET	DUSK
	RETAIL		SERVICE	Pumping)	LIGHTING	TO DAWN
	(2)	(9)	(2)	(8)	(6)	(10)
Adiusted Rate Revenue per APS	2,868,857,719	1,470,133,377	1,342,600,008	26,669,231	20,998,548	8,456,555
Other Bevenue	121,013,337	61,674,921	56,525,049	1,216,323	1,167,525	429,518
Total Adjusted Revenue	2,989,871,056	1,531,808,298	1,399,125,057	27,885,554	22,166,073	8,886,073
Total Operating Expenses	2,515,515,172	1,323,943,907	1,142,987,717	25,119,326	17,323,570	6,140,652
Adjusted Operating Income	474,355,885	207,864,392	256,137,340	2,766,228	4,842,504	2,745,421
Adjusted Rate Base	5,720,277,476	3,419,731,076	2,159,417,218	45,658,280	67,341,332	28,129,571
Rate of Return at Present Rates	8.29%	%80'9	11.86%	80.9	7.19%	9.76%
Relative Rate of Return	1.00	0.73	1.43	0.73	0.87	1.18
Subsdidy at Present ROR	(0)	(125,176,880)	127,407,098	(1,686,263)	(1,226,341)	682,386
Contained COS	8.87%	8.87%	8.87%	8.87%	8.87%	8.87%
Required Revenue Increase to Reg ROR	54,609,705	157,823,986	(106,791,815)	2,122,148	1,869,228	(413,842)
APS Requested Fair Value Increment	40,883,000	24,440,924	15,433,422	326,321	481,291	201,043
Total Increase Requested - Equal ROR	95,492,705	182,264,910	(91,358,393)	2,448,469	2,350,518	(212,799)
ADS Dranged Increases	95,493,000	58,104,000	35,413,000	000'996	761,000	249,000
Tax on Proposed Increase	(37,729,284)	(22,956,890)	(13,991,676)	(381,667)	(300,671)	(98,380)
Operating Income at Proposed Rates	532,119,601	243,011,501	277,558,664	3,350,562	5,302,833	2,896,041
Bate of Beturn at Proposed Rates	9.30%	7.11%	12.85%	7.34%	7.87%	10.30%
Relative Rate of Return	1.00	0.76	1.38	0.79	0.85	1.11
Subsidy at Proposed ROR	(0)	(124,161,065)	126,771,269	(1,482,468)	(1,589,529)	461,793

ARIZONA PUBLIC SERVICE COMPANY
CALCULATION OF SUBSIDIES UNDER PRESENT AND PROPOSED RATES
TEST YEAR ENDING DECEMBER 31, 2010, ADJUSTED

					GENERAL SERVICE RATE SCHEDULES	RATE SCHEDULES		l.		
	TOTAL	E-20	E-32 TOU	E-32 TOU	E-32 TOU	E-30, E-32	E-32	E-32	E-34	E-35
	GENERAL SVC	(Church Rate)	(0-100kW)	(101-400kW)	(401+ kW)	(0 - 100 kW)	(101 - 400 kw)	(401+ kW)		
	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
Adjusted Rate Revenue per APS	1,342,600,008	3,885,908	5,087,112	6,385,132	22,916,517	490,605,200	317,315,278	303,798,301	80,597,093	112,009,467
Other Revenue	56,525,049	165,168	179,003	267,333	1,120,199	17,230,008	13,386,728	13,992,412	4,122,181	6,062,018
Total Adjusted Revenue	1,399,125,057	4,051,076	5,266,115	6,652,465	24,036,716	507,835,208	330,702,006	317,790,713	84,719,274	118,071,485
Total Operating Expenses	1,142,987,717	3,624,832	3,894,824	5,243,470	20,317,695	394,821,973	269,399,544	266,433,886	73,645,452	105,606,042
Adjusted Operating Income	256,137,340	426,244	1,371,291	1,408,995	3,719,021	113,013,235	61,302,461	51,356,827	11,073,822	12,465,443
Adjusted Rate Base	2,159,417,218	10,796,550	5,439,067	7,934,303	31,602,764	852,780,613	521,011,457	471,197,520	117,735,373	140,919,571
Rate of Return at Present Rates	11.86%	3.95%	25.21%	17.76%	11.77%	13,25%	11.77%	10.90%	9.41%	8.85%
Relative Rate of Return	1.43	0.48	3.04	2.14	1.42	1.60	1.42	1.31	1.13	1.07
Subsdidy at Present ROR	127,407,098	(775,455)	1,521,365	1,241,620	1,815,795	69,923,950	29,918,647	20,305,625	2,166,647	1,288,903
Requested ROR - Original Cost	8.87%	8.87%	8.87%	8.87%	8.87%	8.87%	8.87%	8.87%	8.87%	8.87%
Required Revenue Increase to Reg. ROR	(106,791,815)	878,527	(1,469,440)	(1,165,874)	(1,514,093)	(61,782,720)	(24,944,713)	(15,807,249)	(1,042,664)	56,412
APS Requested Fair Value Increment	15,433,422	77,163	38,873	56,707	225,866	6,094,849	3,723,685	3,367,663	841,458	1,007,157
Total Increase Requested - Equal ROR	(91,358,393)	955,690	(1,430,567)	(1,109,167)	(1,288,227)	(55,687,870)	(21,221,028)	(12,439,586)	(201,206)	1,063,569
APS Proposed Increases	35,413,000	151,000	101,000	158,000	635,000	10,911,000	8,791,000	8,418,000	2,476,000	3,772,000
Tax on Proposed Increase	(13,991,676)	(29,660)	(39,905)	(62,426)	(250,889)	(4,310,936)	(3,473,324)	(3,325,952)	(978,268)	(1,490,317)
Operating Income at Proposed Rates	277,558,664	517,584	1,432,386	1,504,569	4,103,133	119,613,298	66,620,137	56,448,876	12,571,555	14,747,126
Rate of Return at Proposed Rates Relative Rate of Return	12.85% 1.38	4.79% 0.52	26.34% 2.83	18.96% 2.04	12.98% 1.40	14.03% 1.51	12.79%	11.98% 1.29	10.68% 1.15	10.46% 1.12
Subsidy at Proposed ROR	126,771,269	(804,691)	1,531,567	1,267,167	1,923,228	66,598,757	30,012,003	20,857,573	2,677,211	2,708,453

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

GARY PIERCE, CHAIRMAN BOB STUMP SANDRA D. KENNEDY PAUL NEWMAN BRENDA BURNS

IN THE MATTER OF THE APPLICATION OF)
ARIZONA PUBLIC SERVICE COMPANY FOR	
A HEARING TO DETERMINE THE FAIR VALUE)
OF THE UTILITY PROPERTY OF THE COMPANY) Docket No. E-01345A-11-0224
FOR RATEMAKING PURPOSES, TO FIX A JUST	
AND REASONABLE RATE OF RETURN)
THEREON, TO APPROVE RATE SCHEDULES)
DESIGNED TO DEVELOP SUCH RETURN)

EXHIBIT_(SJB-3)

OF

STEPHEN J. BARON

COST OF SERVICE/RATE DESIGN

ON BEHALF OF THE

KROGER CO.

J. KENNEDY AND ASSOCIATES, INC. ROSWELL, GEORGIA

ARIZONA PUBLIC SERVICE COMPANY ANALYSIS OF BASE REVENUES BY DETAILED CLASS TEST YEAR ENDING DECEMBER 31, 2010, ADJUSTED

Revenues without Fuel and Transmission

Less: Less: Fuel and Transmission A Fuel and		Base Revenues	0.037571		Total Revenues	Increase -Base Rates	se Rates			Bill Impacts	
Customer Classification Freent Rates I (5000) Fuel (Transmission I Transmission I (5000) Fuel (Transmission I (5000) Fuel (Transmission I (5000) Fuel (Transmission I (5000) Fuel (5000) Transmission I (5000) (5000)		under	Less:		Less	Per APS Calculation	culation	PSA	RES	Net of PSA, RES	Net Impact on
19,267 306,132	Customer Classification and Current Rate Designation	Present Rates ¹ (\$000)	Base Fuel	Less: Transmission	Fuel and Transmission	Amount (\$000)	%	Impact ¹¹ (\$000)	Impact ¹² (\$000)	Impact (\$000)	Non-Fuel, Trans %
464,358 138,959 19,267 306,132 462,337 155,423 21,553 285,360 250,031 65,363 11,604 173,064 2 104,438 51,272 5,533 47,633 11,804 income 2,008 7,891 1,434 19,683 10w income 16,008 5,288 997 12,263 10w income 2,988 1,059 182 1,747 1R Low income 2,988 1,059 182 1,747 1R Low income 2,988 1,059 182 1,747 1R Low income 1,636 5,288 997 12,263 10w income 2,988 1,059 182 1,747 1R Low income 3,886 1,378 295 2,213 XS 199,177 53,311 6,037 13,982 XS 290,021 95,811 13,992 180,148 M 317,315 123,216 14,631 13,134 1OU XS 6,385 17,027 13,648 13,123 1OU M 6,385 2,287 5,894 1,562 171 2,721 1OU M 6,385 2,287 6,287 35,962 100 M 70d 6,385 2,870 5,884 753,562 10d 10d 6,385 2,870 5,884 753,562	Recidentia				i						
462,337 155,423 21,553 285,360 250,031 65,363 11,604 173,064 104,438 51,272 5,533 47633 IR 120,460 52,065 6,250 62,145 by moreome 18,649 5,388 997 12,263 low income 2,988 1,059 182 1,747 IR Low income 2,988 1,059 182 1,747 IR Low income 1,470,134 483,325 67,693 919,116 XS 199,177 53,311 6,037 139,829 XS 2199,177 53,311 6,037 139,829 XS 2199,177 53,311 6,037 139,829 XS 2199,177 53,311 6,037 139,829 I OU XS 6,385 173,216 13,992 180,148 I OU XS 6,385 1,562 171 2,721 TOU I SO,597 44,54 1,562 171 2,721 TOU I SO,597 44,59 530,193 35,562 Total General Service 1,342,599 50,193 56,844 753,562	E-12	464,358	138,959	19,267	306,132	15,668	3.37%	19,718	(6,003)	26,383	8.62%
25,031 65,363 11,604 173,064 104,438 51,272 5,533 47,633 10,460 52,065 6,250 62,145 Low income 129,008 7,891 1,434 19,683 low income 16,008 5,288 997 12,263 low income 1,608 5,288 997 12,263 low income 1,608 5,288 997 12,263 low income 1,636 5,28 753 9,997 IR Low income 1,636 1,039 182 1,1,47 XS	ET-1	462,337	155,423	21,553	285,360	18,566	4.02%	22,054	(6,573)	34,047	11.93%
2 104,438 51,772 5,533 47,633 1R 120,460 52,065 6,250 62,145 p 221 86 10 124 Low income 18,649 5,288 753 9,997 Low income 1,636 5,258 753 9,997 IR Low income 1,636 5,26 753 9,997 IR Low income 1,636 5,60 109 966 IR Low income 1,636 560 109 966 IR Low income 1,636 5,60 1,747 966 IR Low income 1,636 5,60 1,747 966 IR Low income 1,636 5,60 1,747 966 IR Low income 1,470,134 483,325 67,693 919,116 IR Low income 1,470,134 483,325 67,693 919,116 IR Low income 1,470,134 483,325 67,693 919,116 XS 1,990,177 53,311 6,633<	ET-2	250,031	65,363	11,604	173,064	10,039	4.02%	9,275	(2,727)	16,587	%85'6
120,460 52,065 6,250 6,145 221 86 10 124 221 86 10 124 23,008 7,891 1,434 19,683 10,08 income 18,649 5,388 997 12,263 10,08 income 1,608 5,388 997 12,263 11,008 income 1,636 560 109 12,08 income 1,636 5,60 109 13,08 income 1,636 1,747 14,06 239 2,731 15,00 income 1,470,134 483,325 67,693 919,116 14,06 239 2,73 139,829 15,00 income 1,440 1,440 15,00 income 1,440 15,00 income 1,440 15,00 income 1,440 15,00 inc	ECT-2	104,438	51,272	5,533	47,633	4,194	4.02%	7,275	(916)	10,553	22.15%
Low income 29,008 7,891 1,434 19,683 low income 18,649 5,388 997 12,263 low income 18,649 5,388 997 12,263 low income 1,6008 5,258 182 1,747 low income 1,6008 1,636 182 1,747 low income 1,636 1,636 182 1,741 low income 1,636 1,437 low income 1,636 1,440 1,440 low income 1,636 low income 1,636 low income 1,636 low income 1,638 low income 1,636 low income 1,638 low income 1,636 low income 1,640 low incom	ECT-1R	120,460	52,065	6,250	62,145	4,837	4.02%	7,388	(1,140)	11,085	17.84%
Low income 29,008 7,891 1,434 19,683 low income 18,649 5,388 997 12,263 low income 1,6308 5,258 753 9,997 I Low income 2,988 1,059 182 1,747 I Low income 2,988 1,059 182 1,747 I I Low income 3,886 1,378 67,693 919,116 stal Service 3,886 1,378 29 2,213 X S 1,406 239 27 1,411 X S 199,177 53,311 6,037 180,48 M 317,315 133,216 17,663 199,18 M 303,798 137,027 13,648 153,123 TOU IX 6,385 2,628 440 2,721 TOU I 22,917 1,162 3,515 35,155 TOU I 80,537 6,387 5,669 44,070 TOU I 112,009 6,387 5,884 753,562<	ET-SP	221	98	10	124	∞	3.62%	12	(3)	17	13.68%
low income 18,649 5,388 997 12,263 low income 16,008 5,258 753 9,997 I/A Low income 1,636 5,268 753 9,997 I/A Low income 1,636 1,059 182 1,747 I/A Low income 1,636 560 109 966 I/A Low income 3,886 1,378 67,693 919,116 Exal Service 3,886 1,378 2,213 1,141 XS 199,177 53,311 6,037 199,289 A 317,315 13,992 180,148 199,178 M 317,316 13,992 180,148 199,179 14,668 440 M 317,318 173,216 14,668 15,628 15,13,23 10,931 TOU NS 4454 1,562 171 2,721 TOU L 22,917 1,140 5,628 44,070 TOU L 80,587 3,832 44,070 TOU L	E-12 Low income	29,008	7,891	1,434	19,683	2,035	7.02%	•	(801)	1,234	6.27%
Jow income 16,008 5,258 753 9,997 Low income 2,988 1,059 182 1,747 Low income 1,656 560 109 966 Total Residential 1,470,134 483,325 67,693 919,116 Total Residential 1,470,134 483,325 67,693 919,116 Low income 3,886 1,378 295 2,213 Low income 3,886 1,378 295 2,213 Low income 1,656 239 2,73 Low income 1,656 2,53 1,141 Low income 1,656 1,667 1,141 Low income 1,656 1,567 1,141 Low income 1,656 1,567 1,141 Low income 1,656 1,567 1,141 Low income 1,667 1,567 1,141 Low income 1,667 1,141 1,141 Low income 1,667 1,	ET-1 low income	18,649	5,388	766	12,263	1,309	7.02%		(366)	943	7.69%
1,036 1,036 1,036 1,047 1,047 1,047 1,041 1,470,134 1,435 560 109 966	ET-2 low income	16,008	5,258	753	6,997	1,124	7.02%	ı	(505)	915	9.15%
1,636 560 109 966 Total Residential 1,470,134 483,325 67,693 919,116 Axs 3,886 1,378 295 2,213 Axs 199,177 53,311 6,037 1,141 A 199,177 53,311 6,037 139,829 S 290,021 95,881 13,992 180,148 N 317,315 123,216 14,631 179,468 TOU XS 633 137,027 1,4631 179,468 TOU XS 638 1,562 171 2,721 TOU L 22,917 11,107 880 35,15 TOU L 80,537 12,639 44,070 Total General Service 1,342,599 530,193 58,844 733,562	ECT-2 low income	2,988	1,059	182	1,747	210	7.03%		(32)	175	10.02%
Total Residential 1,470,134 483,325 67,693 919,116 21 3,886 1,378 295 2,213 1,406 239 27 1,141 2 5,811 6,037 139,829 3 7,315 123,216 14,631 179,468 W 317,315 123,216 14,631 179,468 TOU XS 6,385 1,732 13,648 153,123 TOU NS 6,385 1,562 171 2,721 TOU M 6,385 2,297 11,107 880 10,931 TOU I 80,597 40,804 3,832 35,962 Total General Service 1,342,599 530,193 58,844 753,562	ECT-1R Low income	1,636	260	109	996	114	6.97%	,	(24)	8	9.31%
1,378 295 2,213 1,441	Total Residential	1,4	483,325	67,693	919,116	58,104	3.95%	65,722	(21,797)	102,029	11.10%
1,378 295 2,213 1,446 1,378 295 2,213 1,441 1											
XS XS 199,177 S3,311 C 199,177 S3,311 C 290,021 S5 290,021 S5,821 13,992 180,148 M 317,315 123,216 14,631 119,468 TOU XS G33 TOU XS C C C C C C C C C C C C C	General Service	000	01.01	200	2 213	151	%08 E	195	(177)	219	76 b
XS 1,406 239 27 1,141 1 1,406 239 27 1,141 XS 199,177 53,311 6,037 139,829 XS 290,021 95,881 13,992 180,148 M 317,315 123,216 14,631 179,468 TOU XS 633 137,027 13,648 153,123 TOU X 6385 1,562 171 2,721 TOU M 6,385 2,628 242 3,515 TOU M 80,597 40,804 3,832 35,962 Total General Service 1,342,599 530,193 58,844 753,562	E-20	2000	0/6/1	5	777	1	2000		(121)		
XS 199,177 53,311 6,037 139,829 N 30,021 95,881 13,992 180,148 N 303,798 137,027 13,648 153,123 TOU XS 633 17,027 13,648 153,123 TOU M 6385 2,628 242 3,515 TOU N 22,917 11,07 880 TOU R 80,592 62,870 5,689 44,070 Total General Service 1,342,599 530,193 58,844 753,562	E-30	1,406	239	27	1,141	35	2.49%	34	(31)	38	3.33%
XS 199,177 53,311 6,037 139,829 S 290,021 95,881 13,992 180,148 M 317,315 123,216 14,631 179,468 L 303,798 137,027 13,648 153,123 TOU XS 633 17,62 171 2,721 TOU M 6,385 2,628 242 3,515 TOU L 80,597 40,804 3,832 35,952 TOU I 12,099 62,870 5,689 44,070 Total General Service 1,342,599 530,193 58,844 753,562	E-40	-1	•	٠	-						
S 290,021 95,881 13,992 180,148 M 317,315 123,216 14,631 179,468 L 303,798 137,027 13,648 153,123 TOU XS 633 173 2,721 TOU N 6,385 1,562 171 2,721 TOU L 22,917 11,107 80 10,931 TOU L 80,557 40,804 3,832 35,962 Total General Service 1,342,599 530,193 58,844 753,562	E-32 XS	171,661	53,311	6,037	139,829	4,435	2.23%	7,565	(6,017)	5,983	4.28%
M 317,315 123,216 14,631 179,468 L 303,798 137,027 13,648 153,123 TOU XS 633 17,52 17,02 17,12 TOU M 6,385 1,628 242 3,515 TOU L 22,917 11,107 880 10,931 R0,557 40,804 3,832 35,962 Total General Service 1,342,599 530,193 58,844 753,562	E-32 S	290,021	95,881	13,992	180,148	6,441	2.22%	13,605	(10,847)	9,199	5.11%
L 303,798 137,027 13,648 153,123 TOU XS 633 173 270 X 440 TOU XS 6,385 2,628 2,42 3,515 TOU M 22,917 11,07 80,527 11,009 62,870 5,069 44,070 Total General Service 1,342,599 530,193 58,844 753,562	E-32 M	317,315	123,216	14,631	179,468	8,791	2.77%	17,484	(3,834)	22,441	12.50%
TOU XS 633 173 20 440 TOU S 4,454 1,562 171 2,721 TOU M 6,385 2,628 242 3,515 TOU L 22,917 11,07 880 10,931 TOU L 80,587 40,804 3,832 35,962 112,009 62,870 5,069 44,070 Total General Service 1,342,599 530,193 58,844 753,562	E-32 L	303,798	137,027	13,648	153,123	8,418	2.77%	19,444	(929)	26,933	17.59%
TOU S 4,454 1,562 171 2,721 TOU M 6,385 2,628 242 3,515 TOU L 22,917 11,107 880 10,931 R0,557 40,804 3,832 35,962 112,009 62,870 5,069 44,070 Total General Service 1,342,599 530,193 58,844 753,562	E-32 TOU XS	633	173	20	440	13	2.05%	25	(13)	25	2.68%
TOU M 6,385 2,628 242 3,515 TOU L 22,917 11,107 880 10,931 80,557 40,804 3,832 35,962 112,009 62,870 5,069 44,070 Total General Service 1,342,599 530,193 58,844 753,562	E-32 TOU S	4,454	1,562	171	2,721	88	1.98%	222	(130)	180	6.62%
TOU L 22,917 11,107 880 10,931 80,597 40,804 3,832 35,962 112,009 62,870 5,069 44,070 Total General Service 1,342,599 530,193 58,844 753,562	E-32 TOU M	6,385	2,628	. 242	3,515	158	2.47%	373	(89)	463	13.17%
80,597 40,804 3,832 35,962 112,009 62,870 5,069 44,070 Total General Service 1,342,599 530,193 58,844 753,562	E-32 TOU L	22,917	11,107	880	10,931	. 635	2.77%	1,576	(42)	2,169	19.84%
112,009 62,870 5,069 44,070 Total General Service 1,342,599 530,193 58,844 753,562	E-34	80,597	40,804	3,832	35,962	2,476	3.07%	5,790	(96)	8,170	22.72%
1,342,599 530,193 58,844 753,562	E-35	112,009	62,870	5,069	44,070	3,772	3.37%	8,921	(95)	12,601	78.59%
	Total General Service		530,193	58,844	753,562	35,413	2.64%	75,234	(22,226)	88,421	11.73%

ANALYSIS OF BASE REVENUES BY DETAILED CLASS TEST YEAR ENDING DECEMBER 31, 2010, ADJUSTED ARIZONA PUBLIC SERVICE COMPANY

Revenues without Fuel and Transmission

	Base Revenues	0.037571		Total Revenues	Increase -Base Rates	e Rates			Bill Impacts	
	under	Less:		Less	Per APS Calculation	ulation	PSA	RES	Net of PSA, RES	Net Impact on
Customer Classification	Present Rates ¹	Base	Less:	Fuel and	Amount		Impact ¹¹	Impact ¹²	Impact	Non-Fuel, Trans
and Current Rate Designation	(\$000)	Fuel	Transmission	Transmission	(\$000)	%	(\$000)	(\$000)	(\$000)	%
Irrigation and Water Pumping	26,669	11,771	2,069	12,829	996	3.62%	1,670	(589)	2,047	15,96%
Outdoor Lighting										
E-58	10,107	1,248	138	8,721	371	3.67%	177	(88)	429	5.26%
E-59	9,701	3,513	396	5,792	346	3.57%	498	(52)	792	13.68%
Contract 12	1,013	432	42	539	35	3.46%	61	(18)	78	14.47%
E-67	178	129	13	36	6	2.06%	18	(17)	10	27.90%
Total Outdoor Lighting	20,999	5,322	290	15,087	761	3.62%	754	(176)	1,339	8.87%
Dusk to Dawn Lighting	8,457	925	104	7,428	249	2.94%	131	(123)	257	3.46%
Total Sales to	2,868,858	1,031,536	129,301	1,708,022	95,493	3.33%	143,511	(44,911)	194,093	11.36%
Ultimate Retail Customers										

Line No. 30 33 33 33 33 33 34 35 35 35 35 35 36 40 40 40

NOTES TO SCHEDULE:

- Share the Light Rate Schedules are included in Rate Schedule E-58.
 Share the Light Rate Schedules are included in Rate Schedule E-58.
 Rider rate schedules are included in the "Parent" rate schedule H-2 as applicable.
 Rider rate schedules are included in the "Parent" rate schedule Bisted on schedule H-2 as applicable.
 Riders include: E-3, E-4, CPP-RE5, CMPW-01, E-53, E-54, PPR, CPP-G5, Solar-2, Solar-2, Solar-2, GPS-3, GPS-3, EPR-2, EPR-6, E-56, and SC-5.
 Rate Schedule E-36 is not included as proposed price changes are market-related.
 Dusk to Dawn Lighting customers are included in residential and general service counts as this service is included on each customer's primary billing.
 Dusk to Dawn Lighting customers are included in residential and general service counts as this service is included on each customer's primary billing.
 Rate E-40 proposed revenue is reflected in E-32 M
 Excludes 144,149 MWh of revenue credits, total sales with revenue credits = 27,833,756 MWh
 Reflects increase in PSA revenues due to requested decrease in base fuel rate.
 Reflects decrease in RE5 revenues due to requested transfer of RE5 funds to base rates.

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

GARY PIERCE, CHAIRMAN BOB STUMP SANDRA D. KENNEDY PAUL NEWMAN BRENDA BURNS

IN THE MATTER OF THE APPLICATION OF)
ARIZONA PUBLIC SERVICE COMPANY FOR)
A HEARING TO DETERMINE THE FAIR VALUE)
OF THE UTILITY PROPERTY OF THE COMPANY) Docket No. E-01345A-11-0224
FOR RATEMAKING PURPOSES, TO FIX A JUST)
AND REASONABLE RATE OF RETURN)
THEREON, TO APPROVE RATE SCHEDULES)
DESIGNED TO DEVELOP SUCH RETURN)

EXHIBIT_(SJB-4)

OF

STEPHEN J. BARON

COST OF SERVICE/RATE DESIGN

ON BEHALF OF THE

KROGER CO.

J. KENNEDY AND ASSOCIATES, INC. ROSWELL, GEORGIA

Recommended Rate Spread Analysis

		ACC JURISDICTION	NC		
TOTAL	RESIDENTIAL	GENERAL	E-221 (Water	STREET	DUSK
RETAIL		SERVICE	Pumping)	LIGHTING	TO DAWN
(2)	(9)	(2)	(8)	(6)	(10)

Revenues, less Fuel and Transmission	1,708,022	919,116	753,562	12,829	15,087	7,428
APS Proposed Increase - Base Rates	95,493	58,104	35,413	966	761	249
APS Proposed Net PSA, RES Revenue Increase	98,600	43,925	53,008	1,081	578	8
APS Proposed Increase - NET	194,093	102,029	88,421	2,047	1,339	257
Percent Increase	11.36%	11.10%	11.73%	15.96%	8.87%	3.46%
Total Increase Requested - Equal ROR	95,493	182,265	(91,358)	2,448	2,351	(213)
APS Proposed Net PSA, RES Revenue Increase	98,600	43,925	53,008	1,081	578	8
Total Increase @ Equal ROR - NET	194,093	226,190	(38,350)	3,529	2,929	(205)
Percent Increase	11.36%	24.61%	-5.09%	27.51%	19.41%	-2.76%
Recommended Proposed Rate Spread - Percent Incre	11.36%	14.36%	7.63%	14.36%	14.36%	7.63%
Total Increase @ Equal ROR - NET	194,093	132,018	57,498	1,843	2,167	567
Percentage Point Deviation From Average Increase	0.00%	3.00%	-3.73%	3.00%	3.00%	5.73%

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

GARY PIERCE, CHAIRMAN BOB STUMP SANDRA D. KENNEDY PAUL NEWMAN BRENDA BURNS

IN THE MATTER OF THE APPLICATION OF)
ARIZONA PUBLIC SERVICE COMPANY FOR)
A HEARING TO DETERMINE THE FAIR VALUE)
OF THE UTILITY PROPERTY OF THE COMPANY) Docket No. E-01345A-11-0224
FOR RATEMAKING PURPOSES, TO FIX A JUST)
AND REASONABLE RATE OF RETURN	
THEREON, TO APPROVE RATE SCHEDULES)
DESIGNED TO DEVELOP SUCH RETURN	

EXHIBIT_(SJB-5)

OF

STEPHEN J. BARON

COST OF SERVICE/RATE DESIGN

ON BEHALF OF THE

KROGER CO.

J. KENNEDY AND ASSOCIATES, INC. ROSWELL, GEORGIA

RATE E-32 L TYPICAL BILL ANALYIS - WINTER

			Monthly Bill	Components of	nents of Proposed Bill	Monthly Bill	Change		Impact	Impact of	Net Change	ge
kw Fi	Load Factor	Monthly kWh	under Present Rates	Base	Transmission	under Proposed Rates	Amount(\$)	%	ot PSA Roll-in	RES/REAC Roll-in	Amount(\$)	%
401 -	15%	43,910	6,191.67	7,301.67	635.59	7,937.26	1,745.58	28.2%	234.09	(89.37)	1,890.30	30.5%
401	30%	87,819	9,573.93	9,167.38	632.29	9,802.97	229.04	2.4%	468.19	(89.37)	607.86	6.3%
401	45%	131,729	11,435.26	11,033.10	632.59	11,668.69	233.43	2.0%	702.28	(89.37)	846.34	7.4%
401	%09	175,638	13,296.58	12,898.81	632.59	13,534.40	237.82	1.8%	936.38	(89.37)	1,084.83	8.2%
401	75%	219,548	15,157.90	14,764.53	635.59	15,400.12	242.21	1.6%	1,170.47	(89.37)	1,323.31	8.7%
900	15%	65,700	9,022.22	10,677.83	951.00	11,628.83	2,606.61	28.9%	350.27	(89.37)	2,867.51	31.8%
009	30%	131,400	14,082.96	13,469.43	951.00	14,420.43	337.47	2.4%	700.53	(89.37)	948.63	6.7%
009	45%	197,100	16,867.98	16,261.02	951.00	17,212.02	344.04	2.0%	1,050.80	(89.37)	1,305.47	7.7%
909	%09	262,800	19,653.00	19,052.61	951.00	20,003.61	350.61	1.8%	1,401.07	(89.37)	1,662.30	8.5%
009	75%	328,500	22,438.03	21,844.21	951.00	22,795.21	357.18	1.6%	1,751.33	(89.37)	2,019.14	80.6
800	15%	87,600	11,866.99	14,070.96	1,268.00	15,338.96	3,471.97	29.3%	467.02	(89.37)	3,849.62	32.4%
800	30%	175,200	18,614.64	17,793.09	1,268.00	19,061.09	446.45	2.4%	934.04	(89.37)	1,291.12	6.9%
800	45%	262,800	22,328.00	21,515.21	1,268.00	22,783.21	455.21	2.0%	1,401.07	(89.37)	1,766.90	7.9%
800	%09	350,400	26,041.37	25,237.34	1,268.00	26,505.34	463.97	1.8%	1,868.09	(89.37)	2,242.68	8.6%
800	75%	438,000	29,754.73	28,959.46	1,268.00	30,227.46	472.73	1.6%	2,335.11	(89.37)	2,718.47	9.1%
90	100	100 500	14 711 76	17 464 10	1 585 00	19 049 10	737.34	79.5%	583.78	(89.37)	4.831.74	37.8%
1,000	700	100,000	22,141,00	27 246 76	1 505 00	23 701 75	555 43	2 4%	1 167 56	(89.37)	1 633 61	7 1%
1,000	30%	219,000	23,146.32	22,110.73	1,383.00	28.47.01.7.3	566.38	2.4%	1 751 33	(78-68)	7 228 34	%U &
1,000	45% %04	328,500	32 429 73	31 422 06	1,585.00	33.007.06	577.33	1.8%	2,335.11	(89.37)	2,823.07	8.7%
1,000	75%	547,500	37,071.44	36,074.72	1,585.00	37,659.72	588.28	1.6%	2,918.89	(89.37)	3,417.79	9.5%
700	ا م	164 250	21 823 69	25,946,92	2.377.50	28,324.42	6,500.74	29.8%	875.67	(89.37)	7,287.03	33.4%
1,500	30%	328.500	34.475.53	32,925,91	2,377.50	35,303.41	827.88	2.4%	1,751.33	(89.37)	2,489.84	7.2%
1,500	45%	492,750	41.438.08	39,904.89	2,377.50	42,282.39	844.31	2.0%	2,627.00	(89.37)	3,381.93	8.5%
1,500	%09	657,000	48,400.64	46,883.87	2,377.50	49,261.37	860.73	1.8%	3,502.67	(89.37)	4,274.02	8.8%
1,500	75%	821,250	55,363.20	53,862.85	2,377.50	56,240.35	877.15	1.6%	4,378.33	(89.37)	5,166.11	9.3%
3,000	15%	328,500	43,159.46	51,395.41	4,755.00	56,150.41	12,990.95	30.1%	1,751.33	(268.13)	14,474.15	33.5%
3,000	30%	657,000	68,463.14	65,353.37	4,755.00	70,108.37	1,645.23	2.4%	3,502.67	(268.13)	4,879.77	7.1%
3,000	45%	985,500	82,388.26	79,311.34	4,755.00	84,066.34	1,678.08	2.0%	5,254.00	(268.13)	6,663.95	8.1%
3,000	%09	1,314,000	96,313.37	93,269.30	4,755.00	98,024.30	1,710.93	1.8%	7,005.33	(268.13)	8,448.13	8.8%
3,000	75%	1,642,500	110,238.49	107,227.27	4,755.00	111,982.27	1,743.78	1.6%	8,756.66	(268.13)	10,232.31	9.3%

RATE E-32 L TYPICAL BILL ANALYIS - SUMMER

ge		%	27.5%	5.7%	6.4%	%6.9	7.3%	28.5%	%0'9	%2'9	7.2%	7.5%	29.0%	6.2%	6.8%	7.3%	7.6%	29.4%	6.3%	%6'9	7.4%	7.7%	29.8%	6.4%	7.0%	7.5%	7.8%	29.9%	6.3%	7.0%	7.4%	7.7%
Net Change		Amount(\$)	1,900.40	628.05	876.64	1,125.22	1,373.81	2,882.62	978.85	1,350.80	1,722.75	2,094.69	3,869.77	1,331.42	1,827.35	2,323.28	2,819.21	4,856.92	1,683.98	2,303.89	2,923.81	3,543.72	7,324.81	2,565.39	3,495.26	4,425.13	5,355.00	14,549.70	5,030.88	6,890.61	8,750.35	10,610.09
Impact of	RES/REAC	Roll-in	(89.37)	(89.37)	(89.37)	(89.37)	(89.37)	(89.37)	(89.37)	(89.37)	(89.37)	(89.37)	(89.37)	(89.37)	(89.37)	(89.37)	(89.37)	(89.37)	(89.37)	(89.37)	(89.37)	(89.37)	(89.37)	(89.37)	(89.37)	(89.37)	(89.37)	(268.13)	(268.13)	(268.13)	(268.13)	(268.13)
Impact	of PSA	Roll-in	234.09	468.19	702.28	936.38	1,170.47	350.27	700.53	1,050.80	1,401.07	1,751.33	467.02	934.04	1,401.07	1,868.09	2,335.11	583.78	1,167.56	1,751.33	2,335.11	2,918.89	875.67	1,751.33	2,627.00	3,502.67	4,378.33	1,751.33	3,502.67	5,254.00	7,005.33	8,756.66
		%	25.4%	2.3%	1.9%	1.7%	1.6%	25.9%	2.3%	1.9%	1.7%	1.6%	26.2%	2.3%	1.9%	1.7%	1.5%	26.4%	2.3%	1.9%	1.7%	1.5%	26.6%	2.3%	1.9%	1.7%	1.5%	26.9%	2.3%	1.9%	1.7%	1.5%
Change		Amount(S)	1,755.68	249.24	263.73	278.22	292.71	2,621.72	367.69	389.37	411.05	432.73	3,492.12	486.75	515.65	544.56	573.47	4,362.52	605.80	641.93	678.07	714.21	6,538.52	903.43	957.64	1,011.84	1,066.04	13,066.50	1,796.34	1,904.75	2,013.15	2,121.55
Monthly Bill	nnder	Proposed Rates	8,677.57	11,283.60	13,889.63	16,495.66	19,101.69	12,736.54	16,635.83	20,535.13	24,434.42	28,333.72	16,815.90	22,014.96	27,214.02	32,413.08	37,612.14	20,895.27	27,394.09	33,892.92	40,391.74	46,890.57	31,093.68	40,841.92	50,590.15	60,338.39	70,086.63	61,688.92	81,185.39	100,681.87	120,178.34	139,674.82
moonents of Proposed Bill		Transmission	632.29	632:28	632.28	632.59	632.59	951.00	951.00	951.00	951.00	951.00	1,268.00	1,268.00	1,268.00	1,268.00	1,268.00	1,585.00	1,585.00	1,585.00	1,585.00	1,585.00	2,377.50	2,377.50	2,377.50	2,377.50	2,377.50	4,755.00	4,755.00	4,755.00	4,755.00	4,755.00
Components of		Base	8,041.98	10,648.01	13,254.04	15,860.07	18,466.10	11,785.54	15,684.83	19,584.13	23,483.42	27,382.72	15,547.90	20,746.96	25,946.02	31,145.08	36,344.14	19.310.27	25,809.09	32,307.92	38,806.74	45,305.57	28,716.18	38,464.42	48,212.65	57,960.89	67,709.13	56,933.92	76,430.39	95,926.87	115,423.34	134,919.82
Monthly Bill	under	Present Rates	6,921.89	11,034.36	13,625.90	16,217.44	18,808.98	10,114.81	16,268.14	20,145.75	24,023.37	27,900.98	13,323.78	21,528.21	26,698.37	31,868.52	37,038.67	16.532.75	26,788.29	33,250.98	39,713.67	46,176.36	24,555.16	39,938.48	49,632.52	59,326.55	69,020.59	48,622.42	79,389.05	98,777.12	118,165.19	137,553.26
	Monthly	kWh	43,910	87,819	131,729	175,638	219,548	65,700	131,400	197,100	262,800	328,500	87,600	175,200	262,800	350,400	438,000	109.500	219.000	328,500	438,000	547,500	164,250	328,500	492,750	657,000	821,250	328,500	657,000	985,500	1,314,000	1,642,500
	Load	Factor	15%	30%	45%	%09	75%	15%	30%	45%	%09	75%	15%	30%	45%	%09	75%	15%	30%	45%	%09	75%	15%	30%	45%	%09	75%	15%	30%	45%	%09	75%
		Κ	401	401	401	401	401	009	009	009	009	900	800	800	800	800	800	000	1,000	1.000	1,000	1,000	1,500	1,500	1,500	1,500	1,500	3.000	3.000	3,000	3,000	3,000